

Book Reviews

B. L. Horecker and E. R. Stadtman (Eds.): Current Topics in Cellular Regulation, Vol. 12. London: Academic Press 1977. Pp. 280, £ 20.95, \$ 29.50.

There are two major series of review volumes which permit experimenters in the field of cellular biochemistry to present an overview of their data. One is this series, now at Volume 12, which comprises several articles up to the standard of its elder siblings. Each article in the book covers a complex topic of major concern, and all but one make a breath-taking attempt to hold multiple threads together. There is little encumbrance with methodological details, which is acceptable because scrupulous accounts exist elsewhere. This combination of features, vital to the continued high reputation of this series, clearly holds for the authors here. Let us whet the appetite with some details of the articles. The article on receptors by Bradshaw and Frazier carries a hint of the text-book approach; it selects a few examples from mammalian peptides, and is full of sensible pointers. Rosen and colleagues present an excellent account of the properties of the soluble cyclic-AMP-dependent protein phosphokinase from heart, with particular emphasis on the phosphorylation of the regulatory subunit. Masters presents an article on metabolic control inside real cells, choosing examples mainly from carbohydrate metabolism. He deserves a mention in despatches for his attempt to move away from the over-simplifications which hinder many current attempts at theory in this area; for example, his highlighting of the fact that hexose-phosphate handling in cells exhibits anomeric specificity is laudable. Ottaway and Mowbray's article neatly complements that by Masters, in again grappling with cell interiors; their drawing-together of the evidence regarding the organization of glycolytic enzymes, in a range of mammalian tissues, clearly provides the best unification yet. The evolution of induction mechanisms is reviewed by Ormston and Parke, invoking the β -ketoacid pathway as an example. Sadly, there is terminological over-proliferation here, built tenuously round the unsurprising fact that enzymes in a pathway tend to induce in a cluster. Lastly, Zillig and colleagues write an account of phage-encoded ADP-ribosylation of DNA-dependent RNA polymerase, which is not much longer than the Discussion section of some research papers. Full marks for brevity, anyway. All in all, an excellent new addition to this series, which leads the continuing quest for insights into cells via review articles. It would sit well in any library. D. A. Hems (London)

G. Schettler, E. Stange, R. W. Wissler (Eds.): Atherosclerosis – is it reversible? Berlin, Heidelberg, New York: Springer 1978. Pp 104, DM 28,-, US \$ 14.00.

This small monograph consists of papers and discussion in a symposium devoted to the regression of atherosclerosis. The first half is devoted to the known and putative mechanisms by which the ingress and egress of lipid from the arterial wall is controlled. Most of this discussion necessarily concerns experimental animals and it is interesting to see how much diversity there is between species. Kritchevsky contributes a review of dietary factors other than lipid which affect the development of atherosclerosis in animals and this should be compulsory reading for those who hold simplistic views about diet and atherosclerosis in man. The second half of the book is concerned with regression of lesions and there are several interesting contributions concerning the experimental studies on various species of primates as well as the biochemical background to the apparently protective effect of high density lipoprotein. The general feeling in this section is one of optimism in relation to regression – or prevention – of atherosclerosis in man, though Constantinedes injects a note of scepticism concerning regression of fibrous lesions. The main emphasis in this book is upon

lipid metabolism and there is little for the more haematologically inclined. There is also very little for the diabetologist specifically. However, it provides an interesting and up-to-date review of one segment of atherosclerotic research which both clinical and laboratory oriented readers should find of value. R. J. Jarrett (London)

Maurice Dérot (Ed.): Précis de Diabétologie. Paris: Masson 1977. Pp. 1080, FF 295.

This attractively presented French-written volume attempts to provide the student and the physician with an overall view on all aspects of diabetes mellitus. More than one hundred exclusively French authors, among whom are many internationally distinguished scientists, have contributed chapters devoted to fundamental, clinical and therapeutical sections. Professor M. Dérot, Member of the Academy of Medicine acts as the Editor of the book. The reviewer particularly enjoyed the basic sections on insulin secretion, on glucagon, insulin and glucagon receptors and on growth hormone. The Chapters on diabetes and pregnancy, dietary management of diabetes, insulin therapy and ophthalmological and neurological complications provide the reader with an excellent review of these topics. Some chapters are incomplete (insulin catabolism, liver triglyceride synthesis, protein synthesis) and their bibliography sometimes remains rather old (pharmacokinetics of biguanides, pituitary investigation in sex disturbances, blood viscosity in diabetics). Although the last chapters devoted to short summaries on practical aspects are of some interest, one is impressed (adversely) by bold claims such as "there is no practical interest in the measurement of plasma insulin in diabetics" or "most often, a single lente insulin injection allows good control of diabetes". A surprisingly high number of spelling and typographical errors unfortunately mars a few chapters of this book. Some of them are of practical importance: blood lactate level above and not below 7 mEq/l (p. 340), all blood glucose values erroneous by a factor of 10 on pp. 796–797 and GH in $\mu\text{g/ml}$ instead of ng/ml. A detailed list of errata should appear as soon as possible. There are many excellent points to the book and on the whole these outweigh the deficiencies. A. Luyckx and P. Lefebvre (Liège)

Petrides, P., Weiss, L., Löffler, G., Wieland, O. H. (Translated by Williamson, D. H.): Diabetes Mellitus: Theory and Management. Baltimore/Munich: Urban & Schwarzenberg 1978. Pp. 143, 26 figs., 2 colour plates with 8 photographs, 30 tables, Cloth DM 32.-, US\$ 12.50.

This is an English translation of a slim volume (143 pages, of which 20 are occupied by references) from Germany. In spite of what Sir Hans Krebs says in his foreword there are several concise and comprehensive books of this kind in English and it must therefore be considered an alternative work for those who are looking for a short book on diabetes. The first two chapters – 'on the Biochemistry of the hormones concerned with diabetes' and 'the Characteristics of the Biochemistry of Energy-yielding Substrates' – are wholly admirable and would by themselves make the book worth buying. The clinical section is less satisfactory comprising a rapid guide to the relevant literature with little attempt at critical analysis. Retinopathy and Neuropathy earn less than a page each (Vitamin B12 being described as 'a promising therapy'), whereas Diet receives 10 pages which regrettably are Anglo-American, not German. The translation is splendidly unobtrusive and, apart from the opening chapters, the value of the book lies in the many references to the European and mainly German literature which are unfamiliar to most English and American readers.

J. Malins (Birmingham)