

synthetase by phosphorylation at several sites, the operation of insulin in controlling the activity of the phosphatases and kinases involved is elaborated.

The remaining two articles, by E. Breslow and S. Burman on neurophysin receptors and by E.C. Theil on ferritins are studies of binding by proteins.

All the authors are experts in their fields and much of their articles follows from their own work. The volume indexing is excellent. Every enzymologist should read this volume; if they work in or near any of the areas described it should be on their bookshelves.

A. Thomson

Hormones: From Molecules to Disease; Edited by E.-E. Baulieu and P.A. Kelly; Chapman and Hall; London, 1990; viii + 697 pages; £47.50.

This book comprises a series of 14 chapters which combine to form a comprehensive review of our current understanding of the endocrine system. It opens with a very long account of the basic principles of endocrinology in a chapter which could almost stand alone as a textbook on the subject. This is followed by rather shorter contributions from a variety of authors who write in detail on the synthesis, secretion and action of hormones. The coverage is wide and the book achieves its objective of taking the reader from basic science to clinical medicine in each chapter. As such it will be a valuable resource to students (and teachers) of endocrinology in a range of disciplines. One of the most innovative features of the book is the inclusion of subsections which provide detailed accounts, at the molecular level, of recent important developments in defined areas of the subject. These sections allow coverage of material (e.g. receptor-mediated endocytosis, control of transcription) at a level of detail which would not be appropriate in the main body of the text. As such, they provide valuable information that would normally be available only in more specialised works. Apart from this aspect, the book contains much of the standard material that would be expected in a modern endocrinology textbook.

Each chapter deals with a different hormone or group of hormones and the chapters are all subdivided extensively, which

makes it relatively easy to locate topics of interest. All sections are also well illustrated and referenced, with the references appearing as footnotes on, or near to, the appropriate pages. The references are supplied with titles, which aids in the selection of further reading when attempting to follow up a particular topic. In this context, I suspect that most readers will find this book more useful as a source of reference, than as an introductory text to be read from cover to cover. Indeed, extended reading is made difficult by the decision of the editors to highlight 'significant' concepts by placing certain words in italics. This serves to emphasise the words on the printed page, but has been employed so frequently that, in my view, it represents a distraction from the flow of the text. Moreover, on a number of occasions, the choice of italicised words seems arbitrary and leaves the reader wondering as to the precise implication.

Overall, I believe that this book should be welcomed as comprehensive and up to date textbook of endocrinology. Its price dictates that it will not be found on every student's bookshelf, but it will be a valuable source of reference to all scientists and clinicians with an interest in endocrine physiology and pathophysiology.

N.G. Morgan

Peptide Hormone Action: A Practical Approach; Edited by K. Siddle and J.C. Hutton; IRL Press; Oxford, 1991; xix + 256 pages; £22.95

The Practical Approach series occupy a valuable niche in Biochemistry and Cell/Molecular Biology. Although full of detailed protocols, they are not just recipe books, because the authors are encouraged to discuss the advantages and disadvantages of different methods, and place them in the context of their field. They are also marketed at a price at which individuals and laboratories can buy specific volumes, rather than waiting for the library to buy the whole series. The present volume, which maintains the generally high standard of the series, is a companion to 'Peptide Hormone Secretion', and covers the action of peptide hormones at the target cell, i.e. receptors, second messengers, and other signal transduction systems. It would be surprising if there were not some overlap with two previous volumes in the series, i.e. 'Receptor Biochemistry' and 'Receptor-

Effector Coupling', but I did not have those volumes available for comparison.

This book is in fact relevant to a wider field of research than the title indicates, because 4 out of the 7 chapters discuss second messenger systems that are utilized by many non-peptide hormones and mediators. The first two chapters cover receptor binding studies and receptor characterization and, as in the last chapter, insulin and its receptor are widely used as a model. There follow the four chapters on second messengers, i.e. cyclic nucleotides, calcium, inositol phosphates and lipid mediators (e.g. diacylglycerol). The chapter on calcium by Campbell's group is notable for spending as much time on the use of photoproteins as on the more popular synthetic intracellular indicators such as fura-2. While this information is hard to obtain elsewhere, a minor