tracellular regulation of conjugated and unconjugated ubiquitin, the proteases which degrade the ubiquitin conjugates and discussions of the possible specificities for the selective protein ubiquitinization and proteolysis. These include a possible role for arginyl tRNA transferase to modify the amino-terminus of certain proteins thereby rendering them susceptible to ubiquitinization and subsequent degradation. However, although it is clear that protein ubiquitinization can play a proof-reading role in protein quality control and in the selection of proteins for destruction, it does not follow that attachment of ubiquitin to a protein automatically predestines it to an early grave. Although a portion of of histone H2A is ubiquinitinated at only one of its many lysine residues the polypeptide is not rapidly catabolised; in fact the ubiquitin moiety is turned-over whilst the H2A component is conserved. It is perhaps relevant that polyubiquitinated H2A has not been detected. Most of the chapters conclude with sections on unresolved questions which range from mechanistic details of ubiquitin conjugation to wider biological problems such as the possible connection between protein catabolism and DNA repair which result from the discovery that the *RAD6* gene product, which is required for repair of damaged DNA, is also a ubiquitin carrier protein (UBC2). Martin Rechsteiner has assembled the major players in the field who have delivered their understanding to the reader but also show that there is still much to learn.

A.R. Hipkiss

Protein Function: A Practical Approach; Edited by T.E. Creighton; Oxford University Press; Oxford, 1989; xx + 306 pages; £29.00 (spiralbound), £18.00 (softback)

This is a companion volume to 'Protein Structure; A Practical Approach', also edited by Tom Creighton. In common with the other titles in the series, it aims to provide recipes and practical hints from workers with direct experience of modern techniques. Surely all proteins have unique functions, so how can one book cover the practicalities of describing and measuring them? The editor's answer is that 'protein function invariably involves the protein interacting physically with other molecules', whether with large or small ligands, or with protein subunits in the formation of oligomers or complexes. Thus the chapters in this book describe how to measure the specificity and stoichiometry of binding, and how to find the interacting sites, leaving the resulting functions (for example, enzyme kinetics, subcellular targetting, regulation of gene expression) to other books, perhaps later volumes in the series.

The chapters by Soutar and Wade on the binding of ligands to 'Western' blots, those by Rhodes, and by Sorger et al. on the analysis of the DNA sequences that specifically bind proteins, and by Colman on the synthesis of nucleotide analogues for affinity labelling, are all good examples of the informative articles we expect in the Practical Approach series. Each chapter gives sufficient detail from the author's own work to allow immediate use in the reader's laboratory, while providing an adequate review of alternative techniques, with literature references.

Chemical modification is covered in two chapters: Imoto and Yamada describe some of the more useful reactions to modify amino acid side chains, and the alterations in activity of the protein that might follow, while Young and Kaplan describe 'competitive labelling' to find groups that are highly reactive or hidden in interacting surfaces. There is some overlap with the chapter by Traut et al. on the use of reagents that introduce disulphide bridges. These authors also describe how to analyse the resulting complexes to map the positions of the cross-links. The rather discursive chapter by Eisenstein and Schachman concentrates almost entirely on the separation, chemical modification, and rehybridization of the catalytic and regulatory subunits of *E. coli* aspartate transcarbamylase, but readers may find useful applications to systems where they need to distinguish the roles of protein subunits.

The chapter on site-directed mutagenesis appears to be completely out of place in this book. This is not because the technique is irrelevant to the study of protein function, but because the writers do not refer at all to the information on the structure or function of the protein that is necessary before rational mutagenesis of the nucleic acid can begin.

There are two 'hidden' features of the Practical Approach series that I would like to point out. First, the books can be useful in teaching undergraduates. Apart from the obvious use in practical classes or research projects, some chapters provide valuable illustrations for a theoretical course. Volkin and Klibanov's article on minimizing the inactivation of proteins in solution, for example, is also a review on 'protein folding' from a practical viewpoint. The second aspect is the unexpected recipes, for example methods for extracting proteins from mammalian cells (Soutar and Wade) or yeast (Sorger et al.) and the throwaway lines that sometimes illuminate one's own previous lack of success; these ensure that it is worthwhile to read the book from cover to cover.

E.A. Carrey

Protein Sequencing: A practical Approach; Edited by J.B.C. Findlay and M.J. Geisow; Oxford University Press; Oxford, 1989; xii + 199 pages; £27.00 (Hardback), £18.00 (softback)

This book, in the 'Practical Approach' series, is written for 'professional and inexperienced research workers... wishing to isolate proteins... and carry out the subsequent sequence analysis'. Seven chapter by different authors are about protein and peptide isolation, peptide purification and characterisation, sequencing by automated solid-phase, gas-

Oxford: IRL Press. (1989). 199 pp. $56.00. @article{Aebersold1990ProteinSA, title={Protein sequencing: A practical approach: Edited by J. B. C. Findlay and M. J. Geisow. Oxford: IRL Press. (1989). 199 pp. \$56.00}, author={R. Aebersold}, journal={Cell}, year={1990}, volume={60}, pages={532-533} }. R. Aebersold. Published 1990. Biology. Cell. Presentation de l'ouvrage: Â«Protein sequencing: a practical approachÂ» Ed. J.B.C Findlay, M.J. Geisow. View on Elsevier. Oxford : Clarendon Press ; Oxford ; New York : Oxford University Press, 1989 (OCoLC)755053646. Material Type: Internet resource.Â The Observer The Oxford English Dictionary is more than a national monument to lexicography. The vast storehouse of the words and phrases that constitute the vocabulary of the English-speaking people is the ultimate authority on the English language as well as a history of English speech and thought from its infancy to the present day. Oxford University Press is a department of the University of Oxford. It furthers the Universityâ€™s objective of excellence in research, scholarship, and education by publishing worldwide in. Oxford New York. Auckland Cape Town Dar es Salaam Hong Kong Karachi Kuala Lumpur Madrid Melbourne Mexico City Nairobi. New Delhi Shanghai Taipei Toronto. With offices in.Â This further ensures that the book fully justifies its title as A Practical Approach to Criminal Procedure. My thanks are due to my colleague at the Inns of Court School of Law, Miss Lynn Slater, BA, LLM, who has not only prepared the case and statute indexes, but also read the book as it was in the course of composition and made many invaluable suggestions for its improvement.