

effect and that "... a postulate of cooperation between the generations has more heuristic value than one of conflict".

All in all the book is an interesting read and is to be recommended.

MICHAEL MOGIE
School of Biology and Biochemistry
University of Bath
Claverton Down
Bath BA2 7AY
U.K.

Structural Studies of Protein–Nucleic Acid Interaction: the sources of sequence specific binding. Thomas A. Steitz. Cambridge University Press, Cambridge. 1993. Pp. 79. Price £12.95, paperback. ISBN 0 521 41489 X.

If asked for my first impression of this book, I would have to say 'What a psychedelic cover!' Considering its size, this book certainly stands out in a crowd, and apart from its use as an informative aid on the subject of the title, alternative uses come to mind. Despite its outwardly gory appearance, Professor Steitz has, I feel, accomplished something quite rare in a scientific text book. He has presented an extremely well-illustrated, well-informed, yet incredibly compact account of a subject which is surely of interest to anyone either working, or merely interested, in the field of molecular genetics.

The fact that various proteins interact intimately with both DNA and RNA is a long established fact, but have you ever wondered exactly how such proteins contact their targets, or how they may accomplish their various functions? If you ever have, but never really knew, then this is the book for you. At only 79 pages, including references and index, it is anything but hard going. In fact, I read it in an evening. This is a supremely well-illustrated book with over 40 sketch diagrams illustrating predicted protein–nucleic acid interactions, as well as 12 colour plates of molecular models and crystallographic determinations. It is concerned with research which relates molecular genetic analysis to structural predictions in defining the specificities of protein–nucleic acid interactions. Within this remit, the book is a clever compromise between introduction to the novice and short review to those involved in such studies.

The opening chapter discusses general principals and problems behind protein interaction with nucleic acids and serves to arm the reader with the knowledge that will guide him or her through the following pages. In the second chapter, Steitz discusses the various structures common in many DNA interactive proteins and this is important since many such structures will be encountered in subsequent chapters. Initially, I felt that I was being 'short-changed' at this point in the book, and I wished there was a little more discussion of the various DNA-binding structural motifs. Clearly, however, the aim of the chapter was to introduce the general principal of such domains which are discussed in great detail in many aspects of DNA–protein interaction throughout the remainder of the book. The differences between DNA and RNA recognition are briefly discussed before both

sequence-specific and sequence-independent interactions are examined. Repressors and activators, and (I was pleased to find) restriction endonuclease, *EcoRI*, are used as examples to illustrate the interaction of sequence-specific proteins with DNA. Perhaps more perplexing are the interactions based on sequence-independent recognition. The more I read, the more engrossed I became and, although several such phenomena are described in the book, I wished there had been more. With hindsight, however, if there had been more then perhaps I would not have found the book as appealing as I did. Much of its attraction is in its simplicity and compactness. After all, an hors d'oeuvre should only serve to whet the appetite.

Although I felt that an increase in the content of the book might detract a lot from its appeal, I did feel that a short section on the physical/experimental processes used in deriving structural predictions would have been of benefit. This, however, is something which I have always wished to know more about and, as such, may not rate as a valid criticism. However, there are other criticisms which I feel are valid: the spelling could do with a little more attention in places and the cover — well you could always tape it to a rotary lab mixer and 'hey-presto!' you would have an instant interrogative aid from a 60s spy spoof! Considering the nature of the cover and contents of the book together, I would like to be the first to suggest that, if the same cover is to be used for a second edition, an alternative, more appropriate, title might be 'Get Into the Groove'.

ANDY STUBBS
Wolfson Unit of Molecular Genetics
Liverpool School of Tropical Medicine
Pembroke Place
Liverpool L3 5QA
U.K.