

## Book Reviews

*Nucleases*, Monograph 14. Edited by STUART M. LINN and RICHARD S. ROBERTS.  
Cold Spring Harbor Laboratory, P.O. Box 100JA, Cold Spring Harbor, N.Y.  
11724 (1982). 378 pages, \$45 (\$54 outside U.S.).

The Cold Spring Harbor Monograph series has provided molecular biologists with many useful and informative books and the latest in this series, *Nucleases*, is no exception. It contains a collection of papers resulting from a meeting on this topic held at Cold Spring Harbor in August 1981. These articles together cover the four Rs of molecular genetics: Replication, Recombination, Repair and Restriction, and perhaps even a fifth, Regulation (an article on RNA processing).

Except for the interesting introductory chapter by Laskowsky briefly recounting the history of nuclease research, the papers fall roughly into two categories. The articles on single-strand specific nucleases, nucleases involved in DNA replication, ribonuclease H, nuclease analysis of RNAs and deoxyribonucleases of *E. coli* summarize the properties of several different nucleases of the appropriate type, while those discussing recombination, DNA topo-isomerases, DNA repair, ATP-dependent restriction endonucleases, type II restriction and modification enzymes and RNA processing give more general overviews of the areas concerned. The book concludes with the mandatory list of type II restriction enzymes and tables of deoxyribonucleases and ribonucleases classified according to their mode of action.

These articles are bound to appeal to a wide audience since they touch on so many different biological phenomena. They should be a valuable aid to both undergraduate and graduate teaching as both the initiate and novice should benefit from each chapter. In some cases the material is too compressed for easy reading, but this is not surprising since one could easily imagine whole books devoted to each of the major topics covered.

This volume should be a particularly useful companion to the various techniques manuals which have been published recently for those using nucleases as tools in recombinant DNA research. It also gives some intriguing insights into the directions in which these areas of research are going. I found the information about protein-nucleic acid interactions which is coming from studies of restriction enzymes particularly interesting. No doubt similar information will soon come from studies of DNA topo-isomerases and the protein-nucleic acid complexes involved in RNA processing. There is no serious omission but it is a pity that these articles were written too soon to include mention of the extraordinary self-processing system recently discovered by Zaug, Grabowski & Cech (1983) for the intervening sequence of Tetrahymena ribosomal RNA precursor.

In short this is an excellent volume which I am happy to recommend to any molecular biologist. It should not age too quickly and most of the chapters will prove useful sources of information for some time to come.

### REFERENCE

ZAUG, A. J., GRABOWSKI, P. J. & CECH, T. R. (1983). Autocatalytic cyclization of an excised intervening sequence RNA is a cleavage-ligation reaction. *Nature* **301**, 578-583.

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