

Book Review

***Basic DNA and RNA Protocols* edited by Adrian J. Harwood**

*Humana, Totowa, NJ; 1996; 514 pp.; 69.50 (comb.),
99.50 (hardcover); ISBN 0-89603-402-X*

Basic DNA and RNA Protocols is a very practical addition to the series of books in *Methods in Molecular Biology*. Adrian Harwood has managed to create a comprehensive compilation of articles that focus on laboratory techniques as applied to nucleic acids. Such a review dedicated to techniques for handling and manipulating DNA and RNA last appeared in 1988 in the series *Methods in Molecular Biology*. Even though many recent articles in the series have touched on aspects of techniques applicable to nucleic acids, it is appropriate and perhaps belated that a comprehensive review of methods arrives to assist practitioners in this fast-paced field.

The intention of *Basic DNA and RNA Protocols* is to draw upon the expertise of experimentalists in order to provide guidance to newcomers in the field. It will be a useful reference book to anyone who requires basic experimental information about protocols and cautions.

The book is essentially a collection of scientific recipes, and is physically produced in ring-bound form for easy desktop opening or durable hardcover form. There are 58 distinct chapters or contributions that are collected into seven parts, followed by a subject index. These seven parts cover analysis of DNA and RNA, gene cloning and subcloning, the polymerase chain reaction, DNA sequencing, and site-directed mutagenesis and protein synthesis. The structural compartmentalization suggested by these seven parts is largely artificial as many of the topics and approaches are related and can be interdependent. The breadth of the topics is excellent in terms of routine experimental work that is being done with nucleic acids across a wide variety of scientific fields.

The content of each chapter is concise and laid out in a very structured style. Each chapter begins with a condensed reference summary approximately one to two pages in length of the topic of the

chapter. This is followed by a detailed numbered list of materials, a detailed numbered list of experimental steps, and very helpfully, a detailed review of common problems and suggestions to minimize problems. The references that appear at the end of each chapter provide citations of original articles, and in many cases, citations of more advanced articles. There are few figures or illustrations, and those that are used focus on conceptually highlighting concepts such as mapping, copying, and annealing. The inclusion of some photographs of chromatographically separated nucleic acids supplies the reader with some useful examples of what can be achieved using specific protocols.

Basic DNA and RNA Protocols is a superb book in terms of answering the need for clear and concise experimental protocols. It goes so far as to detail the preparation of standard commercially available reagents for those who want some insight into production techniques and perhaps cost efficiencies. This book is an excellent introduction to experimental methods, and provides a reliable reference for new comers who want to work competently in the field.

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