

Preface to the Sixth Edition

PREFACE TO THE SIXTH EDITION

During the four years since publication of the Fifth Edition of *Gene Cloning and DNA Analysis: An Introduction* there have been important advances in DNA sequencing technology, in particular the widespread adoption of high throughput approaches based on pyrosequencing. Inclusion of these new techniques in the Sixth Edition has prompted me to completely rewrite the material on DNA sequencing and to place all the relevant information—both on the methodology itself and its application to genome sequencing—into a single chapter. This has enabled me to devote another entire chapter to the post-sequencing methods used to study genomes. The result is, I hope, a more balanced treatment of the various aspects of genomics and post-genomics than I had managed in previous editions.

A second important development of the last few years has been the introduction of real-time PCR as a means of quantifying the amount of a particular DNA sequence present in a preparation. This technique is now described as part of Chapter 9. Elsewhere, I have made various additions, such as inclusion of topoisomerase-based methods for blunt end ligation in Chapter 4, and generally tidied up parts of chapters that had become slightly unwieldy due to the cumulative effects of modifications made over the 25 years since the First Edition of this book. The Sixth Edition is almost twice as long as the First, but retains the philosophy of that original edition. It is still an introductory text that begins at the beginning and does not assume that the reader has any prior knowledge of the techniques used to study genes and genomes.

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