
Preface

There have been numerous advances made in many fields throughout the biosciences in recent years, with perhaps the most dramatic being those in our ability to investigate and define cellular processes at the molecular level. These insights have been largely the result of the development and application of powerful new techniques in molecular biology, in particular nucleic acid and protein methodologies.

The purpose of the *Medical Biomethods Handbook* is to introduce the reader to a wide-ranging selection of those molecular biology techniques that are most frequently used by research workers in the field of medical and clinical research. Clearly, within the constraints of a single volume, we have had to be selective. However, all of the techniques described are core methods and in regular research use. We have aimed to describe both the theory behind, and the application of, the techniques described. A companion volume, the *Molecular Biomethods Handbook*, published in 1998, provides similar details on a range of other basic molecular biology techniques. For those who require detailed laboratory protocols, these can be found in the references cited in each chapter and in the laboratory protocol series *Methods in Molecular Biology*TM and *Methods in Molecular Medicine*TM published by Humana Press.

The *Medical Biomethods Handbook* should prove useful to undergraduate students (especially project students), postgraduate researchers, and all research scientists and technicians who wish to understand and use new techniques, but do not yet have the necessary background to set up specific techniques. In addition, it will be useful for all those wishing to update their knowledge of particular techniques. All chapters have been written by well-established research scientists who run their own research programs and who use the methods on a regular basis. In sum, then, our hope is that this book will prove a useful source of information on all the major molecular biomedical techniques in use today, as well as a valuable text for those already engaged in or just entering the field of molecular biology.

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