

Preface

Molecular biology is one of the basic and rapidly growing fields in the biological sciences. It has widespread applications covering genetic research, drug delivery systems, stem cell therapy and cancer treatment. Recent developments in the subject have confirmed that the functioning of biological systems is based on the flow of genetic information from the DNA. Information contained in the nucleotides of the DNA is passed on to the RNA and ultimately affects the cellular proteins. Thus, control is exercised only by modifying the various stages of protein synthesis. Therefore, studying how the cellular mechanisms are regulated through the different elements of transfer of genetic information is the right approach in molecular biology. Various books that are available do not focus on this aspect adequately. Hence, this book is an attempt to bridge this gap.

It gives a comprehensive overview of the subject and current information has been included. It is written in a clear and simple language and incorporates several student-friendly features. There are numerous illustrations and tables that will enable the readers to grasp the topics easily. The information obtained from various sources has been gratefully acknowledged. Each chapter begins with Learning Objectives and includes Key Points and Self-assessment Questions. The Further Reading section guides the students towards advanced discussion of the topics. It is hoped that the book will be a valuable textbook to students of biotechnology, genetics and other courses which have molecular biology as a component.

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