

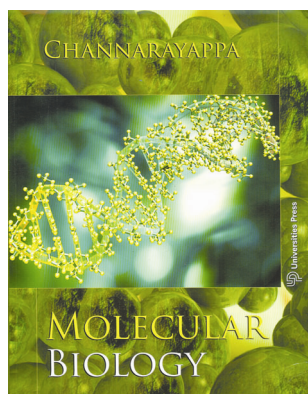
BOOK REVIEWS

on reasonableness rather than actual empirical evidence'. Experiences and experiments might not always agree with such judgments. Nonetheless, this book is an outcome of painstaking research carried out over a period of nearly 2–3 decades (if not more), and contains useful information.

1. EM-DAT: The OFDA/CRED International Disaster Database, Universite catholique de Louvain, Brussels, Belgium; www.emdat.be

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Molecular Biology. Channarayappa. Universities Press (India) Private Limited, 3-6-747/1/A & 3-6-754/1, Himayatnagar, Hyderabad 500 029, India. 2015. viii + 500 pp. Price: Rs 650.

This book is a lucid account of the vast subject of molecular biology. It starts

with the chapter 'Introduction to molecular biology' targeting new entrants to the subject, and introduces them to the most common and recent tools utilized in the field. Some advanced topics like DNA and protein microarray technologies are covered, and it is hoped that the omission of next-generation sequencing technology will be rectified in a future edition. Each chapter in the book ends with key points, self-assessment questions, further reading and references, giving the readers helpful tools to judge and further expand their knowledge about the subject.

The rest of the chapters provide in-depth understanding of basic molecular biology and cover major areas like transcription, RNA processing, translation, and protein processing and transportation. The relevance of the basic biological processes to disease is brought out through helpful sub-topics such as 'Cell division cycle and cancer', within the chapter on 'Cell division'. This is much needed for translation-oriented curricula and allows readers to better appreciate a subsequent chapter on 'Molecular biology of cancer'. The chapter on 'Protein processing and transportation' is notable, due to detailed and illustrative presentation of this important cellular process. How proteins are processed and targeted to different organelles is the key to understand the functioning of a specific cell type. A detailed section on 'Cell signaling' is, however, missed.

The book has separate well laid out chapters on the regulation of gene expression in prokaryotes and eukaryotes, which provide a detailed description of these vital regulatory mechanisms. The section of 'RNA interference' misses out on microRNAs (miRNA), which are currently in the limelight, because of their

crucial post-transcriptional regulatory role in numerous cellular processes and their implication in several diseases, including cancer. Although miRNA is introduced elsewhere, it warrants a more elaborate explanation. The book provides the reader with exhaustive and up-to-date information on epigenetic regulation, genetic recombination, transposons and mutagenesis, and DNA repair. The book includes 'applications' of most of these processes, or discusses about their relation to disease, which is an added advantage to the reader. Readers are also introduced to some recent findings like 'RNA repair'. It is commendable that most of the chapters also include a description about similar mechanisms in 'plant systems', thus making the book useful for both animal and plant biotechnologists. The book concludes with a dedicated chapter on 'Molecular biology of cancer' that is meticulously written and introduces the molecular basis of cancer, types of cancers, cytomorphological characteristics of cancer cells, oncogenes, causes and risk factors leading to cancer, and finally the treatment of cancer.

Overall, the book is written in an eloquent style, and is aimed to help students assimilate complex mechanisms and concepts with reasonable ease. It will definitely prove to be a useful addition to the repertoire of books available for graduate/postgraduate students of basic sciences and medicine.

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