therapeutic strategies for this protein being used in various preclinical to clinical studies.

Dallmann *et al*. deal with an important facet of endogenous circardian clock, which will affect drug absorption, metabolism and will result in circardian pharmacodynamics. Most of the studies have been conducted in animals. This relevant concern requires detailed study involving human subjects.

Sinclair and Guarente, apart from deliberating the background and sirtuin activators in lower organisms, animals and humans, cover the controversies and complexities of their mechanism of action. Their importance in ageing disorders, safety as well as concerns regarding the efficacy of SIRT1 activating compounds has also been emphasized.

The article Offermanns deliberates on the function of short-chain (FFA2 and FFA3) and long-chain (FFA1 and FFA4) free fatty acid (FFA) receptors as well as their synthetic ligands in exerting various cellular and biological functions. Moreover, functions of hydroxyl carboxylic acid receptors and their synthetic ligands, as targets for various diseases have been discussed in a lucid manner.

Mani *et al*. have contributed an article on 'Understanding and modulating mammalian–microbial communication' for improved health. It describes the recent advances of the ecology, genetics and chemistry of the mammalian-microbial axes on communication. Interestingly, microbial transformation of the therapeutic compounds (anti-cancer and NSAIDs) can modulate their efficacy and toxicity.

To summarize, this volume offers a bundle of excellent, short, state-of-the-art status reports on several broad topics covering areas predominantly under CNS, and is a must have for active scientists.

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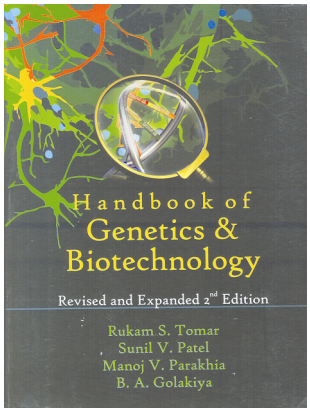


**Handbook of Genetics & Biotechnology, Revised and Expanded 2nd Edition, 2014.** Rukam S. Tomar *et al*. New India Publishing Agency, 101, Vikas Surya Plaza, CU Block, LSC Market, Pitam Pura, New Delhi 110 034. viii + 1122 pp. Price: Rs 795. ISBN 9789383305445.

Recent decades have seen a rapid increase in popularity of biotechnology as a subject of teaching at undergraduate as well as postgraduate levels in the country. This has also entailed greater interest in genetics and molecular biology. In keeping with the increase in the number of students studying these disciplines, several textbooks have been published in the country. Regrettably however, most of them fall below minimal standards with respect to the quality of their contents and/or accuracy of the included information/concepts. In this context, I felt hopeful on being invited by *Current Science* to review the present book. When I received the actual book, its volume (1122 pages of a full size book) appeared promising. The book has 27 chapters, including one massive chapter entitled 'Glossary'. Titles of different chapters relate to common topics expected to be covered in a Master's level course in genetics and molecular biology. Although the name of book suggests equal emphasis on biotechnology, there is no specific topic that relates to typical biotechnology, except the one on 'Recombinant DNA technology'. Chapter 26 is entitled 'Relative Reading': much of its content seems to be related to population genetics and evolutionary genetics, although the preceding two chapters are on 'Population genetics' and 'Evolutionary genetics' respectively. It is not clear why chapter 26 on 'Relative reading' should have so much of overlap with other chapters? The last chapter, 'Glossary', covers nearly 400 pages and defines/describes a large number and variety of terms that extend to general biology/biochemistry. This book has followed an unusual organization of chapters. Each chapter, except the last one, begins with a series of bullet points without any descriptive text or illustrations; rest of each chapter is occupied by a large number of questions which range from MCQs, fill-in-the-blanks and true/false types followed by answers to the questions. The authors believe (as stated in the last sentence of the Preface) that this book would be helpful to 'students who want to pursue their career in the area of genetics and biotechnology since it contains short of each topic followed by objective questions'. In the quoted sentence, authors perhaps intended to say 'contains short description of each topic', but missed the word 'description'.

This voluminous book appears useless as soon as one starts reading it. The short Preface betrays the hopeless inadequacy of the book since not only the grammar and syntax have numerous problems, but what is written here is more worrisome. Just to illustrate, I quote the first few sentences from the Preface of this book: 'Conceptual development in any science is a painful path. With the simple experiments on garden peas; Gregor Mandel laid down the foundation of Modern Genetics. Watson and Creek explored the molecular base of genetics; which started the era of biotechnology. Genetics and Biotechnology are the two sides of the same coin. In fact we have been working in this science since last three sanctuaries'. I must admit that I had to take extra care in typing 'Mandel', 'Creek' and 'sanctuaries' as they are printed in the book. These and the other statements in the Preface reflect conceptual bankruptcy of the authors. The bulleted statements in different chapters do not provide any continuity of concepts or facts since each appears to be a stand-alone statement without any explanatory background. Obviously neither the teacher nor the student would be any wiser after reading such a disjointed text. As noted above, there is hardly any discussion on biotechnology per se. This reflects the common but seriously erroneous perception that biotechnology is nothing more than recombinant DNA technology and molecular biology. Biotechnology needs to be discussed and

taught in a much wider context rather than limiting it to recombinant DNA methods.

The large number of questions (more than 5000 are claimed to be included in the book) in each chapter are a mix of some sensible but many meaningless ones. Glossary may be useful, but since many of the terms are defined or described without proper context, it can be misleading. While randomly glancing through the pages of the book, I was intrigued that compared to the frequency of errors of language in the short Preface, the questions and glossary sections appear to have fewer such errors, although conceptual errors or illogical sets of alternatives in MCQs abound. This makes me worry if questions and glossary are substantially copied from some other sources.

I do not wish to cite any more examples, but would just note that the book is full of conceptual and factual errors. My opinion is that this book should be read neither by students nor by teachers since instead of doing any good such books inflict long-term damage to knowledge and concepts of the reader. I wish there were some regulatory bodies that could curb publication of such sub-standard and damaging books.

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## Addendum

# Understanding our seas: National Institute of Oceanography, Goa

**S. W. A. Naqvi and CSIR-NIO Team**
[*Curr. Sci*., 2015, **108**(8), 1454–1460]

We have noticed an inadvertent error in the caption of Figure 4. One reference is added to the Figure caption. The modified caption is as follows:

**Figure 4.** Typical composite image generated[62] from satellite-derived chlorophyll concentration image (background image) and sea surface temperature (SST, °C) contours. Synchronous near-real-time satellite data of 8 March 2000 were used. The image shows matching features of chlorophyll (a biological variable) and SST (a physical variable). Black lines in the image indicate the suggested potential fishery zones (PFZs).

62. Solanki, H. U., Mankodi, P. C., Nayak, S. R. and Somvanshi, V. S., Evaluation of remote-sensing-based potential fishing zones (PFZs) forecast methodology. *Cont. Shelf. Res*., 2005, **25**, 2163–2173.

*– Authors*