BOOK REVIEW

Title: Modern Methods of Drug Discovery
Author: A. Hillisch and R. Hilgenfeld
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When the Net is abundant with a surfeit of information, a book such as this immediately raises doubts about its value but the answer is obvious too! The fragmentated data from the Net cannot be a substitute for the wholesome wisdom of book.

An encyclopedic first chapter kints up the book, with its 13 chapters, into a comprehensive whole. The first chapter enjoys an indentity of its own with the entire gamut of current trends summed up succinctly.

The concept of drug development has undergone tremendous changes over the past ten years. While competition has been spurring the best brains into action, the economic compulsions and the increased cost-awareness has played havoc with the priorities in drug discovery. The book deals with as much generic information as specifics. Recent trends are discussed at a reasonable length. Concepts such as target identification and validation have been dealt with imaginatively. Techniques such as high throughput screening and combinatorial molecular libraries offer novel variety to the yet uninitiated readers from India. In silico screening and other virtual techniques provide interesting reading to the somnolent Indian academics, especially those associated with the university set up.

The chapter on Proteomics is simple and straightforward with a free flow, with excellent examples. But the chapter on Bioinformatics is too technical. Despite a lofty beginning with a proverbial quote from TS Eliot (most appropriate one at that) it ends up mostly as more `information' and less `knowledge'.

Chapter 4 on High Throughput Screening discusses benefit, limitation and challenges of handling huge galaxy of compounds for possible biological activity. Chapter 5 is exhaustive on natural products successful in the R & D assembly line. Chapter 6 deals with combinatorial chemistry and its vast potential as opposed to limitations. Each chapter has 40 to 140 cross references from the best journals such as J Pharma Sci, J Med Chem etc. All chapters fit in splendidly into the scheme of the book.

Modern drug research is becoming increasingly cost aware; technology driven and knowledge based. The current strategy owes little to the trial and error approach resting on the orthodox inductive procedures of the past. The tighter controls on drug research has posed fresh challenges but the pharmaceutical R & D is by far the most generous with funds, pumping back 20% of the sales turnover into product innovation.

It has been appropriately highlighted that the major cost attributed in pharmaceutical research is on account of failures that amount to as much as 75% of the R&D budget. Ability to indentify failures early in the process of drug development offers a sound policy for containing costs. Genomic approaches can make informed decisions by searching smarter `hay-stacks' with more `needles'. Saving one out of 10 failures would earn an extra $ 100 million, Ironically, we see more and more money being pumped in by an increasingly frugal enterprise!

What is the shelf life of such a book? Perhaps not more than a few years. But after that it will still be valuable because it would work as a compendium for a retrospective view. This book is a must for every institutional library; not just for those specialising in pharmaceuticals.

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