

Book Reviews

Herbal Remedies (CD-ROM) 5.0. Edited by Thomas Brendler, Joerg Gruenwald, and Christof Jaenicke (PhytoPharm Consulting GmbH). MedPharm GmbH Scientific Publishers, Stuttgart, Germany. 2003. \$79.95. ISBN 3-887-63102-1.

The current version of the bilingual Herbal Remedies CD-ROM contains information on over 1100 drugs/species, with over 1500 color photographs. The program has modest system requirements (64 MB RAM and Windows 95 through XP); for purposes of this review, it was evaluated on two systems: a 1.4 GHz Pentium 4 laptop with 512 MB RAM and Windows XP Professional; and a 400 MHz Celeron desktop with 128 MB RAM and Windows 2000 Professional. The program installed and uninstalled flawlessly on each system and was immediately responsive with fast (approximately 3–5 s) load time.

The program is graphically divided into five categories for Drugs, Substances, Plants, Glossary, and Literature, as well as a general Help section. Each category is easily accessed from any other. The Substances, Glossary, and Literature sections provide useful background and supplemental information and provide CAS numbers (where possible), botanical and medical terms, and searching capabilities alphabetically, by keyword, or by author.

The Drugs and Plants sections represent the bulk of the database and, therefore, contain the most robust search options and subcategory selections. For example, the Drugs section contains search subcategories for usage, dosage, modes of action, use restrictions, specification (origin, forms, and preparation), substances, usage in foods, herbal drug synonyms, vernacular names, indications, safety, Commission E Monographs, literature, and efficacy. Each selected drug also carries a Drug Quality Rating, which quickly denotes the general background regarding clinically investigated efficacy, to potential risks.

The Plants section contains similar subcategories for general information, etymology, botany, habitat, botanical synonyms, vernacular names, and photos. The Plants section allows search functions similar to those in the Drugs section, with additional options such as grouping by family. While substances and dosage form information are not contained in the Plants section, it is possible to switch directly to the Drugs section in one click, while keeping the retrieved species.

There were a few minor inconveniences with the program, such as the incomplete display of citations in the Literature section (full authorship is not displayed) and the omission of direct links to Internet literature search engines for full citation, abstract, or ordering purposes. Additionally, the photograph display option worked intermittently on the laptop system tested, but was corrected following reinstallation of the program.

In summary, Herbal Remedies is a well-designed and researched program that allows rapid sorting through a tremendous amount of botanical information, in a very portable format. It offers a greater amount of information compared to the PDR for Herbal Medicines (from the same editors), and it is a complement to any pharmacological and botanical reference library.

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Careers with the Pharmaceutical Industry. Edited by Peter D. Stonier (AXESS, Ltd.). John Wiley & Sons, Inc., West Sussex, England. 2003. xvii + 357 pp. 6 × 9 in. \$35.00. ISBN 0-470-84328-4.

This book is a second edition of the original entitled *Discovering New Medicines*. The original title did not serve to attract the attention of those seeking information about careers in pharmaceutical research and development, and therefore, the title was changed for the second edition to better reflect the subject of the book.

The book is divided into five parts. Part I is intended to provide background on medicinal research and development. First, a historical overview is presented on how the pharmaceutical industry has evolved over the last century. Next, contributions of academic clinical pharmacology to medicinal research since the 1960s are discussed. Even though both of these introductory sections are interesting, they do not seem to add substantial value to the main topic of the book. The last section of Part I on “A Career in Drug Discovery” is very informative, and anyone interested in learning what the pharmaceutical drug discovery process involves would greatly benefit from reading it. This section briefly covers the key elements of the development phase of R&D, but it is somewhat disappointing that this subject is not discussed in as much detail as the discovery phase.

Part II on “Careers in Pre-Clinical and Clinical Research” is heavily focused on various careers in the clinical sector (e.g., research associate, trial coordinator, data management, clinical pharmacology). The section on career opportunities for physicians, in which pros and cons of an industrial position are discussed in great detail, is particularly lucid. In addition, the many roles of statisticians in the R&D process are described, as well as the nature of working in a contract research organization.

In Part III, careers in sales and marketing are briefly described with emphasis on product management (product/brand manager) and all aspects of medical sales from the level of sales representative to the sales manager.

Part IV is a compilation of other career opportunities within the pharmaceutical industry. Some of the careers discussed include opportunities for pharmacists and nurses, as well as careers in medical writing, quality assurance, toxicology, drug safety, regulatory sector, pharmaceutical law, and pharmacoeconomics.

Overall, the last part on “Career Progression” has limited value. Curriculum vitae writing and interviewing skills are covered in-depth in other books dedicated specifically to those topics. Moreover, the section on education and training opportunities in the pharmaceutical industry provides an extensive list of professional organizations offering various educational courses and training (e.g., on regulatory affairs or quality assurance). Unfortunately, the list covers only professional bodies located in the UK and is of little use to readers from other countries.

In conclusion, the book does provide unique and otherwise difficult to obtain information on various career opportunities within the pharmaceutical industry. The book does not focus enough on careers for research chemists and life scientists within pharmaceutical R&D, thereby minimizing its value to a fairly large sector of the pharmaceutical research community. Individuals already involved in a pharmaceutical profession, who perhaps seek advice on career development or a move to another sector

within or outside a pharmaceutical company, would benefit the most from reading this book.

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Compendium of Organic Synthetic Methods, Volume 11. By Michael B. Smith (University of Connecticut). John Wiley & Sons, Inc., Hoboken, NJ. 2003. xx + 795 pp. 6 × 9 in. \$115.00. ISBN 0-471-25965-9.

This most recent update of a series begun in 1971 is the sixth to be assembled by Professor Smith and follows the same format as previous volumes by this author. Transformations are organized into chapters by the type of functional group synthesized and, then, within each chapter by starting material functionality. Each transformation presented consists of a graphical reaction summary—including reagents, conditions, and yields—and a full reference (without titles). The 16 chapters in this volume comprise preparations of alkynes, acid derivatives/anhydrides, alcohols, aldehydes, alkyls/methylenes/aryls, amides, amines, esters, ethers/epoxides/thioethers, halides/sulfonates, hydrides, ketones, nitriles, alkenes, oxides, and difunctional compounds. An author index is also included. Volume 11 covers the literature from 1999 to 2001 and draws almost half of its 3993 new examples from three sources: *Tetrahedron Letters*, *Organic Letters*, and the *Journal of Organic Chemistry*.

This title will be most useful to the synthetic chemist who wishes to browse the literature for new reactions or run a quick check on the feasibility of a required transfor-

mation. The inclusion of substrate structures and specific reaction conditions makes the *Compendium* a more detailed reference than, say, Larock's *Comprehensive Organic Transformations*, but readers would still want to conduct a more thorough database search when looking for close structural precedents. As an example, a quick examination of Chapter 4, Section 48, identifies 58 methods for preparing aldehydes from alcohols. Suggestive of the limitations this search, however, is the fact that 38 of these oxidations have benzyl alcohol as their substrate. While this starting material commonality enables an easy comparison of reaction efficiency, it provides less insight into the issues of functional group compatibility for more elaborate or sensitive substrates. In contrast, a scan of the ketone-alkene subdivision (section 374) provides the reader with almost 100 diverse transformations with much more structural complexity. Portions of the book such as this afford a rapid overview of interesting methods that have been published in recent years. This kind of "let's see what's out there" discovery can be difficult to achieve via computer search.

While the utility of books like this is seemingly marginalized by the availability of more comprehensive and up-to-date computer databases of the chemical literature, and while a search for very specific reactions might be done more efficiently with these tools, the *Compendium of Organic Synthetic Methods* series is still an efficient way to begin a search or to obtain an overview of interesting and useful transformations.

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