Pharmaceutical Research, Vol. 21, No. 10, October 2004 (© 2004)

Book Reviews

Cancer Immunotherapy at the Crossroads. How Tumors Evade Immunity and What Can Be Done. James H. Finke and Ronald M. Bukowski, Eds. Humana Press, Totowa, NJ. www.humanapress.com. 2003. 386 pp. $135.00.

As effective medical treatments for many ills and conditions become available, cancer has become a leading unmet medical need. It is easy to make this generalization because it is backed up by the actions of most leading pharmaceutical companies; cancer is big business. But herein lies the rub. Cancer is not just one disease, even though it is generally considered this way by most of the lay public and too many within the pharmaceutical industry. Those who study the biology of cancer, in its many different forms, have made tremendous progress in understanding the root causes of this cadre of aberrant cell growth conditions we think of as cancer. Although many cancer therapies have now been identified, numerous studies have demonstrated that the most effective and stable responses observed in patients occur when the immune system participates. Recruitment of the immune system to recognize and eradicate cancer cells is one of the most effective means for long-term survival in a cancer patient. Unfortunately, most traditional anti-cancer drugs are designed to kill or suppress actively growing cells in the body—a common phenotype of cancer cells—and this includes cells of the immune system that are required to generate an effective anti-cancer cell response.

The field of cancer immunotherapy has focused on the strategy of recruiting the immune system to control and hopefully eradicate these aberrant cells. Several major complications associated with this approach have been identified, and these issues act to explain much of why the immune system of an individual is ineffective to deal with the peculiar cells that compose a cancer. One problem is that, unlike an external pathogen, cancers are composed of cells that were already identified as "self" by the immune system prior to acquisition of an altered phenotype. Cancer cells have simply taken on an unregulated growth phenotype—a condition not too dissimilar from cells active in wound repair. Actively growing cells, such as those present in the healing wound, establish a complex relationship with their surroundings (e.g., vascular and stomal cells). Many of these actions allow cancer cells to evade immune surveillance and thus allow events such as tissue remodeling to proceed unimpeded. Thus, cancer cells that evade the immune system do so using mechanisms that frequently describe processes used by cells during various stages of normal function where immune suppression or distraction is vital.

As one can surmise from the preceding points, activation of the immune system to selectively identify and remove cancer cells is extremely difficult, yet holds great promise because when it does occur, cancers can be completely eradicated. Numerous studies in murine models using human cancer cells have unrealistically demonstrated remarkable success for immunotherapy approaches. Although these successful studies have the added advantage of non-self immunity, they do clearly demonstrate the power of the immune system to clear cells identified as being peculiar or different. The title for this text edited by James Finke and Ronald Bukowski points out that cancer immunotherapy is at a difficult crossroads; substantial promise generated by animal studies contrasted by dismal clinical failures. However, there is room for optimism as suggested by the subtitle: How tumors evade immunity and what can be done. Not surprisingly, this text provides a clearly optimistic perspective. Not that the answers to these issues are outlined in this text, but a much improved understanding of the issues has now been obtained and for this reason the identification of rational strategies to deal with and even overcome many of these issues seems possible.

I think this is a superb text and would highly recommend it to anyone interested in this field. A series of chapters addressing basic cellular studies defining and characterizing immune evasion mechanisms are presented in the first two-thirds of the book. The majority of these chapters end with a focused assessment of how the information presented may affect or impact clinical efforts of immunotherapy. The latter third of the book is a series of chapters that present recent clinical outcomes of immunotherapies. From this arrangement, the flow from basic science to clinical experience is evident. As one digs deeper and deeper into the information presented in this text, one finds himself or (herself) flipping back and forth between chapters—looking for correlating data and assessing the feasibility of performing a clinical experiment to test the next question that it has generated. For this reason, I feel that this book has definitely hit the mark. It is, however, a text heavily laden with immunological principles and nomenclature and thus is not easily tackled by someone without substantial background in this area. However, I don't really see how such a text could have been written in any other way.

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Cancer Cell Culture. Methods and Protocols. Simon P. Langdon, Ed. (Methods in Molecular Medicine). Humana Press, Totowa, NJ. www.humanapress.com. 2003. 360 pp. $120.00.

This is a very good handbook for cancer cell culture. The topics covered range from general techniques to isolation of specialized cell types and functional assays and cancer cell modification. Each chapter provides a nice introduction of background information and provides detailed information for each step of the protocol being presented. Fine-tuned

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protocols of all topics have been well organized in a well documented and easy-to-follow format. A very unique feature of this book is that, in addition to detailed literatures, highly informative notes to each method have also been included to describe and discuss details of critical or particularly complicated steps or issues, and tips on troubleshooting and avoiding known pitfalls are also provided. Unlike methods or protocols which you can obtain from published papers or other literatures, these notes provide inside information from authors first-hand experience in cancer cell culture and would thus prove to be very useful to both novice and more experienced researchers. In addition to general cancer cell culture protocols, methods for co-culture of different cell types and several examples of co-culture systems were also included in the book. Although the book was given the name of *Cancer Cell Culture*, broad and advanced functional analysis methods including flow cytometric DNA analysis are also covered and extensively described. To meet the blossoming need for cancer cells with specific functions, cell modification methods were listed in a separate chapter in the book. Protocols for transfection, immortalization, development of drug-resistance, and transfer *in vivo* were also listed. The content of the book would be extremely useful for researchers who are going to introduce new techniques to their laboratories and develop new directions in their research. As we know, cell line contamination is becoming a serious problem as extensive resource sharing and cell line exchange activities are undergoing among laboratories around the world. Unrealized but fatal contamination to certain experiments might result in the misinterpretation of results. The authors have clearly realized the importance and listed approaches to detect and eliminate this problem in a separated chapter of the book. My overall feeling is that the book is a worthy addition to any cancer cell culture laboratory.

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Handbook of Anticancer Pharmacokinetics and Pharmacodynamics. William D. Figg and Howard L. McLeod, Eds. (Cancer Drug Discovery and Development). Humana Press, Totowa, NJ. www.humanapress.com. 2004. 623 pp. $175.00. (Includes eBook/PDA on CD-ROM.)

This is an impressive book. It consists of 34 chapters by 69 different authors and covers a wide range of topics. The chapters are well written and easy to read. All the figures are well reproduced, even imaging photographs which normally don't reproduce well. All the chapters are extensively referenced. I was hard pressed to find any criticism of this book (besides some of the usual typographical errors you find in a book of this size), and if I had to make one it would be the paucity of authors from industry.

This book can be contrasted to other books of similar title, like L. B. Grochow and M. M. Ames' (1998) book *A Clinician's Guide to Chemotherapy Pharmacokinetics and Pharmacodynamics* (Williams & Wilkins, Baltimore, MD). In Grochow and Ames, a large portion of the book is divided into drug classes: cisplatin and platinum analogs, taxanes, etc., with other chapters devoted to pharmacokinetic/pharmacodynamic methodology (bioanalytical, noncompartmental analysis, and population analysis) and factors contributing to variability in pharmacokinetics (e.g., protein binding, age, and pharmacogenetics). In this book, the chapters generally follow the drug development process from beginning to end but have many specialized chapters relevant to anticancer drug development. The book begins with molecular targets and how cancer drugs are screened *in vitro* and tested *in vivo*. The book then moves to Phase 1, discussing trial designs, bioanalytical issues, the role of pharmacokinetics and pharmacodynamics in drug development, pharmacokinetic-pharmacodynamic modeling, and exposure-response relationships. The book then moves to Phase 3 designs and how to gain approval of oncolytics by regulatory agencies. Throughout the book are chapters on factors affecting patient response and variability: drug interactions, pharmacokinetics in children and elderly, genetic polymorphisms, and cytochrome p450 (CYP) and non-CYP enzymes. There are also many chapters specific to the field of oncology including cancer vaccines, monoclonal antibodies, gene therapy, regional drug delivery, and intrathecal delivery. Rounding out the book are chapters on microdialysis, pharmacokinetics of biologicals, pharmacogenetic counseling, and a chapter by Howard Gurney that every oncologist should read: Defining the starting dose: should it be based on mg/kg, mg/m^2, or fixed dose?

What I found particularly novel about the book was its emphasis on oncology. That may seem obvious, but for some chapters it would have been easy to use generic examples that did not necessarily relate to oncology. For example, all the chapters on drug metabolism focus on metabolism of anticancer drugs. It would have been easy to write these chapters using the usual examples of metabolism by specific enzymes, for example, midazolam and CYP 3A4. Instead, the chapters focus on how anticancer drugs are metabolized. Something else I found very useful was that the entire book is contained in a PDF file that is available on a CD-ROM that comes with the book. I found many topics searching through the e-book that were not listed in the normal book index. This book is a must have for anyone in oncology and I highly recommend it.

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Transdermal and Topical Drug Delivery. From Theory to Clinical Practice. Adrian C. Williams. Pharmaceutical Press, Grayslake, IL. www.pharmpress.com. 2003. 242 pp. $99.95.

Adrian Williams, an expert and professor in transdermal and topical drug delivery, offers this welcome book as a clear

and structured introduction to the field. Its primary readership is expected to be graduate students and junior researchers in biopharmacy, but scientists in other branches of drug delivery and disposition will also find it a useful read. And one can easily guess that seasoned specialists will want to read this book if only to compare their views with the author's. The preface is a must for anybody wanting to know what the book is about and how it should be approached. In less than two pages, the difference between topical and transdermal delivery is made clear, and the structure of the book is laid out.

The book contains seven chapters ordered in a didactically logical sequence. The structure and function of human skin is presented first, with a good balance between the physiological and pathological factors affecting delivery in and through the skin. The theoretical aspects of transdermal drug delivery are treated in Chapter 2, with a clear exposition of transdermal permeation (Section 2.2), permeation through the stratum corneum (Section 2.3), and the mathematics of skin permeation (Section 2.5). The same cannot be said about Section 2.4, claimed to examine the influence of permeant physicochemical properties on route of absorption. Here, lipophilicity, size, solubility, ionization, *et al.* are surveyed without consideration for their interdependence, whereas structure–permeation relations are all but neglected. Experimental design (Chapter 3) and the chemical modulation of permeation (Chapter 4) are carefully explained, obviously reflecting the author's research experience. The sections of penetration enhancers (Section 4.3) and retardants (Section 4.4) are of particular significance, in contrast to a rudimentary presentation of prodrugs. In this reviewer's opinion, Chapters 3 and 4 would have benefited from extensive compilations of current knowledge presented in tabular form, as done in some of the chapters discussed below.

Following the chemical modulation of permeation, the book quite logically goes on to discuss the physical and technical approaches able to modulate skin permeation, for example liposomes, niosomes, "othersomes," ablation, ultrasound, and electrical methods (Chapter 5). The practical aspects of skin delivery are examined in the last two chapters. Thus, Chapter 6 offers a dense and cogent coverage of topical and transdermal formulations and relies on useful tables for broader information. Another appealing feature of this chapter are six formulation rules that should be of considerable help to researchers. Though such rules may seem obvious once read, being based on common sense, experience, and knowledge, their mere expression in written form is a welcome gift to the readership. The last chapter, under the heading of "Clinical principles," brings it all together by reflecting on quantities to be delivered, formulations to be selected, drugs to be delivered to and through the skin, formulation equivalence, and delivery through a repairing barrier. Here again, extensive tables complement the text and supply comprehensive information. The chapter concludes with four carefully selected case studies. A clear glossary and an extensive subject index close the book.

This work was carefully prepared and is remarkably free of errors (1-propranolol instead of 1-propanol is an amusing exception). Though its illustrations are usually good, there are too few of them. Given its appealing content and reasonable price, this book should find its place in many personal and departmental libraries.

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An Introduction to Materials Engineering and Science for Chemical and Materials Engineers. Brian S. Mitchell. John Wiley & Sons, Hoboken, NJ. www.wiley.com. 2003. 954 pp. $145.00.

This introductory material science book is geared toward undergraduate chemical and material engineering students. The first few chapters cover structure-function relationships, thermodynamic properties of different materials, and kinetic processes in materials. Chapters 4 to 6 examine the transport, mechanical, electrical, magnetic, and optical properties of materials. Chapter 7 discusses the various methods of material processing, and the final chapter is focused on specific material selection based on several applications. The book is rich in the material information that spans the physical, chemical, and biological sciences. The in-chapter exercises and end-of-chapter problem sets make this book a very good teaching tool. However, its application is restricted to material science and engineering. Few, if any, of the examples are of direct relevance to pharmaceutical sciences.

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Biodegradable Polymers. Reza Arshady, Ed. (The PBM Series Volume 2). Citus Books, London, UK. 2003. 396 pp. $244.00.

The application of biodegradable polymers has been extended into many different areas in the past decade. These areas include tissue engineering, nanotechnology, as well as biorelated devices and procedures. The book, *Biodegradable Polymers*, is undoubtedly a comprehensive and informative reference, capturing the fundamentals and applications of biodegradable polymers.

This book is the second volume of a continuing reference series on Polymeric Biomaterials (PBM series). The book covers various aspects of biodegradable polymers. The first chapter introduces the concept and criteria of biodegradable polymers. The second and third chapters provide general reviews on the natural degradable polymers and synthetic polymers, while the fourth and fifth chapters focus specifically on polyanhydrides, polyphosphazenes and their applications.

Conversely, Chapters 6 to 10 cover topics that are quite distinct from the earlier chapters. These topics include surface modification of polymers, optimization of degradation and mechanical properties of polymers, and modeling and experimental control of biodegradation. The concluding chapters (9 and 10) review the degradation mechanisms of biodegradable polymers.

The content within these 10 chapters is systemically organized, while the layout is consistent between chapters. Each chapter begins with a summary, which describes the content, illustrations, and references, and ends with a concluding remark to present the author's view on the topic. On the whole, the book is certainly recommended for teaching and research purposes.

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Polymer Drugs in the Clinical Stage. Advantages and Prospects. Hiroshi Maeda, Alexander Kabanov, Kazurori Kataoka, and Teruo Okano, Eds. (Volume 519 in Advances in Experimental Medicine and Biology). Kluwer Academic/Plenum Publishers, New York, NY. www.wkap.nl. 2003. 224 pp. $90.00.

Recent advances in our understanding of the basic mechanisms of cancer growth and the potential of synthetic materials to act as carriers for cytostatic drugs have encouraged many new strategies. The technology of polymer science has developed considerably during past 30 years and attracted the attention of chemists, polymeric chemists, cancer biologists, and oncologists. The book describes some of the aspects of this technology that will have a great impact in the future and offer an overview of how synthetic polymers can be used in modern medicine. Here, the term "polymer drugs" is primarily used for injectable and water-soluble agents, although some drugs in micellar form are described as well. Perhaps the book is not designed to be the most comprehensive and up-to-date source of information but rather to give concise accounts of the potential for treating cancer patients by polymer-based drugs.

The book begins with a chapter reviewing some aspects of "polymer therapeutics," describing the discovery and development of new polymer materials used for application in drug and gene delivery. Also, enhanced permeability and retention (EPR) effect allowing "passive" targeting or solid tumor accumulation of non-targeted high-molecular weight materials is discussed, and examples are given to show the efficacy of drug targeting in the absence of specific targeting moieties. The mechanism of EPR effect is thoroughly discussed in the following chapter by Professor Maeda and coworkers who were the first to describe this effect with macromolecular drugs. They show that a more efficient drug delivery to tumor may be achieved by enhancing the EPR effect with the use of various vascular permeability mediators or potentiators.

The next three and the last chapter deal with "pegnology," the field in which proteins, peptides, small bioactive molecules, hemoglobin derivatives, and liposome surfaces are modified by poly(ethylene glycol) (PEG) to reduce their immunogenicity and extend circulation lives in patients. Clinical results are discussed with two PEG-enzymes; PEG-adenosine deaminase (PEG-ADA; Adagen) and PEG-asparaginase (Oncaspar). Due to extended blood circulating half life, fewer injections of smaller amounts of pegylated enzymes are required to maintain therapeutically effective blood enzyme level. Though immune responses do occur with Oncaspar, they are fewer than that with unmodified asparaginase. Among pegylated cytokines, interferon alfa-2a (IFN) is the first one in clinical trial. Phase III efficacy and safety results confirmed that the optimization of pharmacokinetics and pharmacodynamics of a pegylated IFN led to higher efficacy than that seen with non-modified IFN. PEG-r-methioninase (PEG-rMET) is another pegylated enzyme tested as a novel approach to the treatment of brain tumors, especially gliomas.

Chemistry, preclinical pharmacology, and results of a Phase I clinical study with poly(L-glutamic acid)-paclitaxel (CT-2103) (Xyotax), a biodegradable polymeric drug conjugate, is the next topic discussed in the book. The results confirm the feasibility of using poly(glutamic acid) homopolymers to create macromolecular cytotoxic drug conjugates with reduced side-toxicity. *N*-(2-hydroxypropyl)methacrylamide (HPMA)-based polymeric drugs are described in next two chapters dealing with chemotherapy and combination photodynamic therapy of ovarian cancer in experimental animals and with the first experience with using polyclonal human immunoglobulin targeted HPMA-bound doxorubicin in patients with generalized angiosarcoma and breast carcinoma. The first clinical data and those obtained in experimental animals point to a dual role, that is, the cytotoxic and immunomobilizing activity of doxorubicin-HPMA conjugates containing a targeting immunoglobulin moiety. A carboxymethyldextran polyalcohol (CM-Dex-PA) has been chosen and tested in Phase I clinical trials as another polymeric carrier for passive tumor targeting. Conjugate containing as a pharmacologically active substance camptothecin showed in experimental animals improved pharmacokinetics with a long retention in bloodstream resulting in tumor-accumulation, enhanced anti-tumor effects and reduced toxicities compared with parent drug.

Polymeric micelles, one of the promising modalities of macromolecular drug delivery systems, are the topic of the following chapter. They circulate stably in bloodstream and accumulate effectively in solid tumors. The results of a Phase I clinical trial of MCC-465, a doxorubicin encapsulated in PEG-immunoliposome used in patients with metastatic stomach cancer, indicate that the pharmacokinetics of MCC-465 differs from that of the free doxorubicin but is very similar to doxil. Some infusion-related reactions were observed such as fever, rigors, chest discomfort, itching, etc., but these symptoms were transient and mild. Other non-hematological toxicities were also mild and no malfunctioning of organs such as liver and the kidney occurred.

The last topic covered in this book is the use of polymeric radiopharmaceuticals. Synthetic polymers are recently established as a new generation of image contrast agents with the potential for clinical application in all modern medical imaging techniques.

In summary, this is a comprehensive, well-organized book that succeeds in tying together clinical experience and basic science. Although the book is written by a number of authors, there is uniformity in style and presentation. Indeed, one of the major advantages of this book is that each chapter is written by an expert in that particular field. It could be invaluable for students and researchers in the field of pharmacology who have particular interests in drug delivery, targeting, and formulation, as well as for clinicians such as oncologists who are interested in the field.

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Atlas of Cell Organelles Fluorescence. Elli Kohen, René Santus, Joseph G. Hirschberg, and Nuri Özkütük. CRC Press, Boca Raton, FL. www.crcpress.com. 2004. 181 pp. $159.95.

This book looks particularly attractive and enticing, and the subject area is very current. However, that is the best that I can say of this volume. In fact, the book cannot be recommended to anyone. The introduction claims to "strive to further the foundations of a good understanding of cellular metabolism, biochemistry, physiopathology and pharmacology, and intra- and extracellular communication signaling." This sounds fine, but it goes on to say "It will have succeeded in its purpose if every image and its associated legend helps to guide researcher in cell biology by pointing to critical points of attack and suggesting possible strategies for investigation." The goals of the book, while laudable, are simply not met.

The book contains a total of 173 pages, arranged in 11 chapters. The chapters are divided into a broad array of topics such fluorescent probes, functional approaches (metabolic and cytotoxic), genetic diseases, and several sections on technology. However, a real drawback of this book is that it relies on long-outdated technologies for image acquisition and unsuitable methods of image reproduction. The authors rarely used original electronic versions of the images. Instead, most of the images presented in the book were simply scanned from the original papers. Scan imperfections, dust, and hairs are clearly seen on these images (Figures 19B, 57D, 58B, 70, 74, and tens of others). To make the situation worse, several images were printed on cheap ink-jet printers with heavily used cartridges before scanning (Figures 85A and 85B). The artifacts are very telling. Some images are printed in black and white even though a complicated pseudocolor look-up table was used. Obviously, nothing really can be concluded from these images. They serve no purpose. Finally, some images were obtained through archaic low-resolution screen grabbers or simply by taking a snapshot of a monitor. It goes without saying that the quality of these images is abysmal. Using a cheap frame-grabber from 1990 (SNAPPY) with (at best) video resolution is hardly acceptable in a book published in 2004.

Fluorescence staining technologies presented in the book are no better. Page 6 has a picture of mitochondria stained with DASPMI, a probe that probably has not been used in most labs for over 20 years. The legend indicates that ". . . the image quality and resolution is somewhat less than obtained in microphotographs. The image is transferred from the intensifier to a videocassette. Further deterioration occurs in the frame grabber SNAPPY, in the attached personal computer and printer." In fact, the image is totally pixilated and has been magnified significantly larger than the original image. The technology identified is simply outdated. The legend appears to be a holdover from a previous use of the image.

The section on nuclear probes (p. 18) is simplistic at best. The advice to use monochlorobimane for glutathione dehydrogenase is incorrect if one is using human cells. I found very many of the legends simply useless or misleading. For example, Figure 16 shows a fibroblast treated with the calcium probe Fura-2. The comment "it is not known whether the high nuclear fluorescence is only dependent on calcium or whether there are other unknown components" is of no meaning at all. The section on cytotoxic drugs is just as bad. There are virtually no control images at all, and almost all the images would be embarrassing for a poster, let alone an expensive book. On page 53 (which contains one of the very few control images presented in this book), the statement that the carbocyanine dye C18(DIL) ". . . has a lifetime of approximately 270 h before photobleaching" is an abuse of the normal meaning of fluorescent lifetimes.

A major problem with this book is that it appears to be one about quality images. It is not. The quality of the images is for the most part poor. The cover gives the impression that the images will be in color. Although there are 8 pages of color plates, the color in most of them is unnecessary to show the image detail.

Another annoying feature is that this book reproduces with inferior quality a number of figures already published. For example, on page 28, Figure 19A, a monochrome rendition of an original color image, is almost useless, with resolution significantly lower than that of the original published image. If that were all, I suppose I could accept it, but on the next page Figure 19B purports to show NAD(P)H autofluorescence. The reference for this previously published image is exactly the same as the reference from Figure 19A. I downloaded the original reference (J. Biol. Chem. **271**:3647–3751, 1996) just to double check. Figure 19B is not in that reference, and the scale bar referenced does not exist. In fact, this image is from a different reference (J. Biol. Chem. **274**:1000–1004, 1999), where it is in color and much better than the version presented here. Figure 19C is no better. As expected, the legend is wrong here too. Not only are the images reversed, but they have also been modified using a brightening algorithm inappropriately. The reference in this legend is also wrong, not surprisingly.

Moving on, we get to Figures 26B and 26C. Reading the legends, one expects to be looking at two different images. Figure 26B says "Aged NMuLi hepatocyte. . . . There is extreme vesiculation of the cytoplasm. These vesicles may be interpreted as tertiary lysosomes loaded with the two cytotoxic agents. Scanned microphotograph." What is actually there is a phase image of hepatocytes. Turning to Figure 26C, the legend says "Quinacrine + nitramine. Aged hepatocyte NMuLi cells maintained for 30 min in the presence of the

cytotoxic compounds nitramine and quinacrine. There is extensive formation of large vesicles, possibly converted from lysosomes, and quinacrine + nitramine loaded. SP." Careful viewing shows that both images are of the identical field: B is a phase image, C is a fluorescence image. There is simply no discussion or acknowledgment of this, or of what the images mean. One image has been trimmed slightly differently from the other, so that they cannot be overlaid. Figure 27 is clearly a fluorescence image (not that it's a clear image), but the legend calls it a phase image! Figures 28A and B and Figure 29 claim to be pseudocolor but are monochrome and do not appear in the color section either.

The chapter on cell-cell communication shows 10 pages of similar images, two of which would be more than enough. The other 8 pages are repetitive and wasted. I can say nothing positive about the chapter on the study of microecosystems . . . all of the images are horrible. Near the end of this book is a chapter on Instrumentation. For a section of less than one page, there are 10 general references: 1932, 1940, 1947, 1970, 1973, 1990, 1991, 1994, and two undated. This "chapter" is hardly reflective of modern imaging instrumentation. There is nothing either useful or remotely up-to-date in this section. A section on fluorescent spectral imaging (part of a chapter on novel methods) does not provide even a single image. Instead we get drawings of optical instruments used to collect multispectral data. It also has to be pointed out that authors describe only one approach to multispectral imaging—the method based on interferometry—completely ignoring the growing field of liquid crystal filter or acousto-optical filter technologies.

Finally, page 162 presents two images that purport to be comparative images demonstrating the increase depth capabilities of 2-photon imaging over 1-photon imaging. These images were apparently improperly compressed with lossy compression formats (JPEG?). Owing to extremely high compression ratios, the quality is very low. The images remind one of pointillist paintings, rather than examples of modern scientific digital microphotography. Showing such poor images as an example of 2-photon depth is counterproductive. There are dozens of better images on the Internet.

Conclusion: This book never should have been published. It is so full of errors and mistakes that it seems unedited. The few pages of color are mostly low-resolution images of poor quality. The great majority of monochrome images are of very low quality. Many legends are mixed or wrong. The discussion in every section is minimal and mostly of little value. This is a collection of relatively bad images, mostly in monochrome, with virtually no discussion. Even an atlas should have good images, even if it has no explanations. It is possible that many people will buy this book based on the nice looking color and the title. At $159.95, this book is overpriced by around $159.00. I would not recommend the purchase of this book to anyone.

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Books Received

Analysis

Analysis and Purification Methods in Combinatorial Chemistry. Bing Yan, Ed. John Wiley & Sons, Hoboken, NJ. www.wiley.com. 2003. 466 pp. $99.95.

Bioanalytical Chemistry. Susan R. Mikkelsen and Eduardo Cortón. John Wiley & Sons, Hoboken, NJ. www.wiley.com. 2004. 361 pp. $94.95.

(Preface) "This is a textbook that incorporates the diverse methods and applications in the depth appropriate to an advanced undergraduate course."

Molecular Analysis and Genome Discovery. Ralph Rapley and Stuart Harbron, Eds. John Wiley & Sons, Hoboken, NJ. www.wiley.com. 2004. 372 pp. $60.00.

(Preface) "This book aims to bring together molecular analysis and genomic discovery and show how the rapid advances in molecular analysis are bringing new tools and approaches to genome discovery. In combination, these provide the impetus for the development of new diagnostic techniques."

Cancer

Cancer Chemoprevention, Vol. 1: Promising Cancer Chemopreventive Agents. Gary J. Kelloff, Ernest T. Hawk, and Caroline C. Sigman, Eds. Humana Press, Totowa, NJ. www.humanapress.com. 2004. 697 pp. $195.00.

(Preface) "Knowledge of carcinogenesis has provided new and promising opportunities to prevent cancer—that is, to treat precancer or inhibit carcinogenesis (a process often involving 20–30 years in human epithelial cancers) rather than waiting to treat the cancer. The term chemoprevention is used to describe this discipline in oncology. This book is a comprehensive survey of promising cancer chemopreventive agents, grouped by pharmacological and/or mechanistic classes. The agent classes presented vary widely in terms of stage of development as chemopreventives, ranging from such extensively studied groups as NSAIDs and antiestrogens to drugs with recently identified potential based on mechanistic activity (e.g., protein kinase inhibitors, histone deacetylase inhibitors, and anti-angiogenesis agents), as well as agents yet to be evaluated in chemopreventive settings (e.g., proteasome and chaperone protein inhibitors). Attention is devoted to food-derived agents (such as tea, curcumin, soy isoflavones), vitamins, and minerals because of their high promise for prevention in healthy populations. This volume describes the relevant drug classes, drugs, mechanisms of action, and relevant drug effect markers."

Handbook of Cancer Vaccines, Michael A. Morse, Timothy M. Clay, and H. Kim Lyerly, Eds. (Cancer Drug Discovery and Development). Human Press, Totowa, NJ. www.humanapress.com. 2004. 592 pp. $185.00. (Includes eBook/PDA on CD-ROM.)

(Preface) "The therapeutic vaccines all share some basic attributes, the presence of target antigens, and a method for delivering the antigen into the antigen-presentation machinery in conjunction with other molecules required to provide T- and/or B-cell activation. The book is intended to provide a comprehensive description of the scientific back-

ground for therapeutic vaccines, the challenges to their development, and their current use to treat cancer."

Cell Cycle and Growth Control: Biomolecular Regulation and Cancer, 2nd Edn. Gary S. Stein and Arthur B. Pardee, Eds. John Wiley & Sons, Hoboken, NJ. www.wiley.com. 2004. 800 pp. $135.00.

(Preface) "Cell cycle and growth control are profoundly relevant to biological regulation of development and tissue renewal. Equally significant is the recognition that aberrations in mechanisms governing proliferation are linked to the onset and progression of tumorogenesis. This book was developed with the objective of presenting concepts, experimental strategies and key findings that enhance understanding of cell cycle and growth control as obligatory physiological processes and from the perspective of compromises that occur in cancer."

Molecular Cancer Therapeutics. Strategies for Drug Discovery and Development. George C. Prendergast, Ed. John Wiley & Sons, Hoboken, NJ. www.wiley.com. 2004. 351 pp. $89.95.

(Preface) "The book focuses primarily on issues relevant to small molecule drugs, rather than biological agents. Included among these areas are concepts and technologies in target discovery and validation, proof-of-concept investigations, drug "lead" screening, enzymology and medicinal chemistry, mouse model systems, preclinical pharmacokinetics and pharmacodynamics, and issues surrounding intellectual property and clinical development."

Clinical Trials and Regulatory Affairs

Textbook of Clinical Trials. David Machin, Simon Day, and Sylvan Green, Eds. John Wiley & Sons, Hoboken, NJ. www.wiley.com. 2004. 416 pp. $250.00.

Bayesian Approaches to Clinical Trials and Health-Care Evaluation. (Statistics in Practice). David J. Spiegelhalter, Keith R. Abrams and Jonathan P. Myles. John Wiley & Sons, Hoboken, NJ. www.wiley.com. 2004. 391 pp. $85.00.

Drugs. From Discovery to Approval. Rick Ng. John Wiley & Sons, Hoboken, NJ. www.wiley.com. 2004. 355 pp. $59.95.

Clinical Studies Management. A Practical Guide to Success. Simon Cook. CRC Press, Boca Raton, FL. www.crcpress.com. 2004. 108 pp. $109.15.

FDA Regulatory Affairs. A Guide for Prescription Drugs, Medical Devices, and Biologics. Douglas J. Pisano and David Mantus, Eds. CRC Press, Boca Raton, FL. www.crcpress.com. 2004. 360 pp. $149.95.

Colloids and Interfaces

Physics and Chemistry of Interfaces. Hans-Jürgen Butt, Karlheinz Graf and Michael Kappl. Wiley-VCH, Weinheim, Germany. www.wiley-vch.de. 2003. 361 pp. $55.00.

(Preface) "Objects in the micro- and nanoworld are dominated by surface effects rather than gravitation or inertia. Therefore, surface science is the basis for nanotechnology. This book focuses on basic concepts rather than specific details, on understanding rather than learning facts. It addresses advanced students of engineering, chemistry, physics, biology, and related subjects and (2) scientists in academia and industry, who are not yet specialists in surface science but want to get a solid background knowledge of the subject."

Colloids and Interfaces with Surfactants and Polymers–An Introduction. Jim Goodwin. John Wiley & Sons, Hoboken, NJ. www.wiley.com. 2004. 285 pp. $65.00.

Colloidal Dispersions: Suspensions, Emulsions, and Foams. Ian D. Morrison and Sydney Ross. John Wiley & Sons, Hoboken, NJ. www.wiley.com. 2004. 616 pp. $104.65.

(Preface) "This book is intended for the industrial chemist or chemical engineer who may not have had a formal university course in colloid and interface chemistry but finds that the nature of the problems that must be solved necessitates the rapid acquisition of some knowledge of that subject."

Drug Discovery and Development

Pharmaceutical Profiling in Drug Discovery for Lead Selection. Ronald T. Borchardt, Edward H. Kerns, Christopher A. Lipinski, Dhiren R. Thakker, and Binghe Wang, Eds. (Biotechnology: Pharmaceutical Aspects). AAPS Press. www.aaps.org. 2004. 482 pp. AAPS Member $148.00, Non-Member $185.00.

(Preface) "This book is based on the workshop of which purpose was to contribute to the field by focusing on procedures for prediction, measurement, and application of compound properties to select and improve candidates. The book discusses *in silico*, *in vitro*, and *in vivo* tools for the prediction and measurement of drug-like properties and applications of this information in the selection of drug discovery leads."

Pharmaceutical Biotechnology. Drug Discovery and Clinical Applications. O. Kayser and R. H. Müller, Eds. John Wiley & Sons, Hoboken, NJ. www.wiley.com. 2004. 311 pp. $190.00.

(Preface) "In the area of new and innovative biotech drugs such as therapeutic proteins and antisense oligonucleotides, pharmaceutical companies are confronted with new challenges to develop new products and to apply new technologies. Industrial needs are particularly different and are either not discussed or are only marginally discussed in the existing textbooks. Experts from pharmaceutical biotech area were asked to present their integrated view to answer questions focusing on industrial needs in the discovery and manufacture of recombinant drugs and new therapies."

Molecular Biology in Medicinal Chemistry. Th. Dingermann, D. Steinhilber, and G. Folkers. (Methods and Principles in Medicinal Chemistry, Volume 21). John Wiley & Sons, Hoboken, NJ. www.wiley.com. 2004. 413 pp. $175.00.

(Preface) "A paradigmatic change in the 1990s gave rise to a focus on the molecular level of drug action and hence demanded the development of appropriate biological assay technology. This is the point where this book starts. The first part deals with molecular targets, going deep into cellular assay technologies. The second part is devoted to synthesis. The third part deals with questions of analysis. The contents of the final part of this book are kinetics, metabolism, toxicology, and the very rapidly growing fields of pharmacogenomics and toxicogenomics."

The Eicosanoids. Peter Curtis-Prior, Ed. John Wiley & Sons, Hoboken, NJ. www.wiley.com. 2004. 634 pp. $350.00.

(Foreword) "This book includes all derivatives of 20-

carbon-atom fatty acids. The emphasis of this book is of course on arachidonic acid and products formed by oxidation and further transformation."

Contemporary Drug Synthesis. Jie-Jack Li, Douglas S. Johnson, Drago R. Sliskovic, and Bruce D. Roth. John Wiley & Sons, Hoboken, NJ. www.wiley.com. 2004. 231 pp. $89.95.

(Preface) "This book illustrates how chemistry, biology, pharmacokinetics, and a host of other disciplines all come together to produce successful new medicines. In order to achieve this goal, a collection of fourteen representative categories of drugs were complied. The drugs were chosen from among the bestselling drugs, such as antithrombotics, cyclooxygenase-2 selective inhibitors, H^+/K^+-ATPase inhibitors, non-sedating antihistamines, cosmeceuticals, atypical antipsychotics, anti-obesity, PDE 5 inhibitors for erectile dysfunction, and antiasthmatics."

Treating and Preventing Obesity. An Evidence Based Review. J. Östman, M. Britton, and E. Jonsson, Eds. Wiley-VCH, Weinheim, Germany. www.wiley-vch.de. 2004. $140.00.

Lipases and Phospholipases in Drug Development: From Biochemistry to Molecular Pharmacology. Günter Müller and Stefan Petry, Eds. John Wiley & Sons, Hoboken, NJ. www.wiley.com. 2004. 336 pp. $165.00.

Staged Diabetes Management: A Systematic Approach, 2nd Edn. Roger S. Mazze, Ellie Strock, Gregg Simonson, and Richard Bergenstal. John Wiley & Sons, Hoboken, NJ. www.wiley.com. 2004. 441 pp. $140.00.

Statins. The HMG-CoA Reductase Inhibitors in Perspective, 2nd Edn. Allan Gaw, Christopher J. Packard, and James Shepherd, Eds. CRC Press, Boca Raton, FL. www.crcpress.com. 2004. 262 pp. $99.00.

(Preface) "Statins are at the core of coronary prevention programmes, and are also under investigation for their impact on other diseases such as osteoporosis and rheumatoid disease. This book represents an up-to-date and in-depth review of statins from both a scientific and a clinical perspective."

Heart Disease and Erectile Dysfunction. Robert A. Kloner, MD, PhD, Ed. Humana Press, Totowa, NJ. www.humanapress.com. 2004. 300 pp. $99.50.

(Preface) "Erectile dysfunction is a common problem in the cardiac patient. The purpose of this book is to review the problem of erectile dysfunction from a cardiac standpoint. We hope that this is the first of many books that might help define a new subspecialty of "uro-cardiology" or "cardio-urology.""

Pain Research: Methods and Protocols. Z. David Luo, Ed. Humana Press, Totowa, NJ. www.humanapress.com. 2004. 303 pp. $99.50.

Osteoporosis in Focus. Niall Ferguson. Pharmaceutical Press, Grayslake, IL. www.pharmpress.com. 2004. 229 pp. $45.00.

Pharmacotherapy of Depression. Domenic A. Ciraulo and Richard I. Shader, Eds. Humana Press, Totowa, NJ. www.humanapress.com. 2004. 349 pp. $99.50.

Nitric Oxide Protocols, 2nd Edn. Aviv Hassid, Ed. (Methods in Molecular Biology, Volume 279). Humana Press, Totowa, NJ. www.humanapress.com. 2004. 246 pp. $89.50.

Receptor Signal Transduction Protocols, 2nd Edn. Gary B. Willars and R. A. John Challiss, Eds. (Methods in Molecular Biology, Volume 259). Humana Press, Totowa, NJ. www.humanapress.com. 2004. 418 pp. $99.50.

Chemoinformatics: Concepts, Methods and Tools for Drug Discovery. Jürgen Bajorath, Ed. (Methods in Molecular Biology, Volume 275). Humana Press, Totowa, NJ. www.humanapress.com. 2004. 524 pp. $125.00.

Handbook of Drug-Nutrient Interactions. Joseph I. Boullata and Vincent T. Armenti, Eds. Humana Press, Totowa, NJ. www.humanapr.com. 2004. 563 pp. $145.00 (includes eBook/PDA on CD-ROM).

(Preface) "Designing regimen that is both safe and effective for the patient is an important part of collaborative drug therapy management. As such, this comprehensive handbook will serve as a resource for pharmacists, dietitians, nurses, and physicians as they partner to enable better drug therapy adherence and therapeutic outcomes for their patients."

Drug Delivery

Cellular Drug Delivery. Principles and Practice. D. Robert Lu and Svein Øie, Eds. Humana Press, Totowa, NJ. www.humanapress.com. 2004. 375 pp. $125.00.

(Preface) "Cellular drug design and development of pharmaceutical platforms for controlled delivery of bioactive substance to the cellular sites of action have been the focus of considerable research and literature discussions throughout the last decade. To understand the controlling mechanisms of drug delivery (including drug targeting and drug transport) to cells, and to effectively design novel pharmaceutical formulations and drug delivery devices, it is essential to carry out research and development with different cell types and characteristics. This book is intended to serve as an up-to-date reference book covering this broad field."

Pharmaceutical Capsules, 2nd Edn**.** Fridrun Podczeck and Brian E. Jones, Eds. Pharmaceutical Press, Grayslake, IL. www.pharmpress.com. 2004. 272 pp. $135.00.

(Preface) "The first edition of this book was entitled *Hard Capsules-Development and Technology*, which was published in 1987. This book sets out to readdress significant changes in the development of shells and fills by reporting on the advances made in hard capsule technology made since 1987. This book is extended to include the technology, formulation and development of soft capsules."

Microcapsule Patents and Products. Reza Arshady and Bojana Boh, Eds. (The MML Series Volume 6). Citus Books, London, UK. 2003. 317 pp. $244.00.

(Preface) "The book is aimed at providing a primary source of reference on microcapsule patents and products, covering both microencapsulation technology and basic knowledge in acquisition of patent information from international databases, and processing and interpretation of the accessed data."

Pharmaceutical Preformulation and Formulation. A Practical Guide from Candidate Drug Selection to Commercial Dosage Form. Mark Gibson, Ed. CRC Press, Boca Raton, FL. www.crcpress.com. 2004. $269.95.

(Preface) "This book emphasizes what practical studies need to be undertaken, for what reasons and during what key stages of the drug development process. In addition, biopharmaceutics (an area of emerging importance) as well as formulation aspects are included. This book is about a logical approach to product development and technology transfer. This approach emphasizes the importance of starting development of NCE with product design prior to com-

mencing product and process optimization, scale-up and technology transfer."

Drug-Eluting Stents: Markets and Technologies. Kenneth G. Krul. Kalorama Information, New York, NY. www.kaloramainformation.com. 2004. 186 pp. $2,500.00.

(Executive Summary) "This report focuses on the market applications of current and advanced technology to the development of drug-eluting stents, and not of bare stent design or materials. This report considers the options that the current technologies present, the progress that is being made in these fields, and the reception these new products are likely to experience in the marketplace. This report does discuss the economics of drug-eluting stent technologies and applications, and their impacts on hospitals and insurers. Market analysis for this report considers the drug-eluting stent markets only in the United States. The analysis presented in this report is based on data from a combination of company, government, industrial, institutional and private sources."

Gene Expression

Gene Transfer and Expression in Mammalian Cells. S. C. Makrides, Ed. (New Comprehensive Biochemistry, Volume 38, G. Bernardi, Gen. Ed.). Elsevier Science B.V., Amsterdam, The Netherlands. www.elsevier.com. 2004. 680 pp. $80.00.

(Preface) "The book covers several broad, related areas: The development of expression vectors for production of proteins in cultured cells, in transgenic animals, vaccination, and gene therapy; progress in methods for the transfer of genes into mammalian cells and the optimization and monitoring of gene expression; advances in our understanding and manipulation of cellular biochemical pathways that have a quantitative and qualitative impact on mammalian gene expression; gene and protein targeting; and the large-scale production and purification of proteins from cultured cells."

Gene Expression Profiling. Methods and Protocols. Richard A. Shimkets, Ed. (Methods in Molecular Biology, Volume 258). Humana Press, Totowa, NJ. www.humanapress.com. 2004. 168 pp. $79.50.

(Preface) "Since the transcription of RNA is a key regulatory point that may eventually signal many other cascades of events, the study of RNA levels in a cell or organ can help the understanding of a wide variety of biological systems. The book focuses on the practical and technical considerations that guide the choice of methodology in the area of quantitative gene expression."

Nanotechnology

Nanocomposite Science and Technology. Pulickel M. Ajayan, Linda S. Schadler, and Paul V. Braun. Wiley-VCH, Weinheim, Germany. www.wiley-vch.de. 2003. 230 pp. $135.00.

(Preface) "The field of nanocomposites involves the study of multiphase material where at least one of the constituent phases has one dimension less than 100 nm. The promise of nanocomposites lies in their multifunctionality, the possibility of realizing unique combinations of properties unachievable with traditional materials. This book describes three areas that provide the basic concepts and generic examples that define the overall nature of the field: nanocomposites based on inorganic materials and their applications; polymer based nanopaticle filled composites; and naturally occurring systems of nanocomposites and current steps towards naturally inspired synthetic nanocomposites."

Nanotechnology: An Introduction to Nanostructuring Techniques. Michael Köhler and Wolfgang Fritzsche. Wiley-VCH, Weinheim, Germany. www.wiley-vch.de. 2004. 272 pp. $155.00.

Microsystem Engineering of Lab-on-a-chip Devices. Oliver Geschke, Henning Klank, and Pieter Tellemann, Eds. Wiley-VCH, Weinheim, Germany. www.wiley-vch.de. 2003. 361 pp. $110.00.

The Handbook of Advanced Materials. Enabling New Designs. James K. Wessel. John Wiley & Sons, Hoboken, NJ. www.wiley.com. 2004. 645 pp. $125.00.

(Preface) "Although there is a tremendous array of materials, this book focuses on so-called advanced materials, especially those offering the latest advancements in properties. Topics of the book include polymer composites, advanced ceramic materials, continuous fiber ceramic composites, and metal composites and alloys."

Protein Arrays: Methods and Protocols. Eric T. Fung, Ed. (Methods in Molecular Biology, Volume 264). Humana Press, Totowa, NJ. www.humanapress.com. 2004. 287 pp. $99.50.

Polymers

Reflexive Polymers and Hydrogels: Understanding and Designing Fast Responsive Polymeric Systems. Nobuhiko Yui, Randall J. Mrsny, and Kinam Park, Eds. CRC Press, Boca Raton, FL. www.crcpress.com. 2004. 452 pp. $179.95.

(Preface) "Despite significant advances in smart materials, and the obvious importance of these kinetic aspects of their responses, there have been only a limited number of studies that address the potentially powerful combination of thermodynamic and kinetic regulation of a smart material. This book brings together a collection of works and discussions that consider both thermodynamic and kinetic properties of smart materials. For lack of any previously defined, suitable term to describe materials whose properties can be modified in a rapid, repetitive, responsive fashion, the term "reflexive systems" was coined. The chapters of this book have been organized to examine components of reflexive systems found in nature, to consider the theoretical limitations of reflexive systems, to characterize the current status of artificially prepared materials that could have both thermodynamic and kinetic response events, and to explore potential future applications of such systems."

Macromolecular Symposia, No. 200: Functional Networks and Gels. E. Geissler, Ed. John Wiley & Sons, Hoboken, NJ. www.wiley.com. 2004. 296 pp. $165.00.

Failure Analysis of Paints and Coatings. Dwight G. Weldon. John Wiley & Sons, Hoboken, NJ. www.wiley.com. 2004. 285 pp. $170.00.

An Introduction to The Mechanical Properties of Solid Polymers, 2nd Edn. I. M. Ward and J. Sweeney. John Wiley & Sons, Hoboken, NJ. www.wiley.com. 2004. 382 pp. $55.95.

Macromolecules Containing Metal and Metal-Like Elements, Volume 3. Biomedical Applications. Alaa S. Abd-El-Aziz, Charles E. Carraher, Jr., Charles U. Pittman, Jr., John E. Sheats, and Martel Zeldin, Eds. John Wiley & Sons, Hoboken, NJ. www.wiley.com. 2004. 218 pp. $125.00.

(Preface) "The appearance of metal-containing macromolecules in the human body is extensive and includes such metals as iron, molybdenum, vanadium, zinc, and copper. Several chapters in this volume concentrate on the most up-to-date research that deals with the cancer treatment as well as antiviral uses employing metal-containing polymers. Metal-containing biomaterials are also important in areas in addition to their use as drugs. This volume also includes the application of metal-containing dendritic structures for biomedical uses and the use of artificial metallo-DNAs."

Protein Chemistry

Reversible Protein Acetylation. Novartis Foundation. John Wiley & Sons, Hoboken, NJ. www.wiley.com. 2004. 300 pp. $140.00.

(Chair's introduction) "Acetylation is now recognized as a critical component of the transcriptional regulatory apparatus. Acetylation has also been detected in non-histone proteins suggesting a role outside of transcription as well. The meeting reviewed the role of histone acetylation and the histone code, and also discussed the enzymes involved in acetylation and their biology."

Bioconjugation Protocols: Strategies and Methods. Christof M. Niemeyer, Ed. (Methods in Molecular Biology, Volume 283). Humana Press, Totowa, NJ. www.humanapress.com. 2004. 330 pp. $125.00.

Vaccination

Novel Vaccination Strategies. Stefan H. E. Kaufmann, Ed. John Wiley & Sons, Hoboken, NJ. www.wiley.com. 2004. 628 pp. $220.00.

(Preface) "The next generation of vaccines has to be designed in a rational way, on the basis of our increasing knowledge of immunology and molecule genetics at the interface between pathogen and host. It is the goal of this book to benefit from recent achievements in basic research for the rational design of novel vaccination strategies against diseases that have thus far evaded successful control. In addition, it includes a kind of retrospective review of vaccine examples that have already demonstrated their great efficacy, so that we can learn from these experiences."

Genomics, Proteomics and Vaccines. Guido Grandi, Ed. John Wiley & Sons, Hoboken, NJ. www.wiley.com. 2004. 313 pp. $125.00.

(Preface) "The aim of this book is to describe in a comprehensive manner and to provide up-to-date examples of an emerging strategy that has the potential to replace the existing approaches to vaccine discovery. The new strategy for vaccine discovery described in this book, which is based on the exploitation of genomic and post-genomic technologies, provides a solution to shorten the time required to identify vaccine candidates, while enhancing the probability of success. As illustrated in this book, the characterization of bacterial genomes, transcriptomes and proteomes offers the opportunity to select the few proteins likely to elicit protective immunity from the plethora of molecules constituting a given pathogen. Once identified, the selected proteins are subjected to high throughput cloning, expression and purification, and finally tested in appropriate correlate-of-protection assays. It seemed an appropriate time to publish a book describing in detail what 'Reverse Vaccinology' is all about, the most relevant technologies involved, and some significant successful examples of its application."

Veterinary Pharmacy

Animal Models of Human Inflammatory Skin Diseases. Lawrence S. Chan, Ed. CRC Press, Boca Raton, FL. www.crcpress.com. 2004. 564 pp. $199.95.

Veterinary Pharmacy. Steven B. Kayne and Michael H. Jepson, Eds. Pharmaceutical Press, Grayslake, IL. www.pharmpress.com. 2004. 606 pp. $59.95.

Others

Pioneering Research. A Risk Worth Taking. Donald W. Braben. John Wiley & Sons, Hoboken, NJ. www.wiley.com. 2004. 198 pp. $39.95.

The Art of Scientific Writing. From Student Reports to Professional Publications in Chemistry and Related Fields. Second, Completely Revised Edition. H.F. Ebel, C. Bliefert, and W. E. Russey. John Wiley & Sons, Hoboken, NJ. www.wiley.com. 2004. 595 pp. $35.00 (paperback).

Managing Scientists: Leadership Strategies in Scientific Research, 2nd Edn. Alice M. Sapienza. John Wiley & Sons, Hoboken, NJ. www.wiley.com. 2004. 246 pp. $39.95.

Excel for Chemists: A Comprehensive Guide, 2nd Edn. E. Joseph Billo. John Wiley & Sons, Hoboken, NJ. www.wiley.com. 2004. 483 pp. $57.50 (with CD-ROM).

Travel Medicine for Health Professionals. Larry I. Goodyer. Pharmaceutical Press, Grayslake, IL. www.pharmpress.com. 2004. 334 pp. $45.00.

British National Formulary, 47th Edn. Dinesh K. Mehta. Pharmaceutical Press, Grayslake, IL. www.pharmpress.com. 2004. 868 pp. $29.95 (paperback).

Pharmaceutical Isolators. Brian Midcalf, W. Mitchell Phillips, John S. Neiger, and Tim J. Coles, Eds. Pharmaceutical Press, Grays Lake, IL. www.pharmpress.com. 2004. 252 pp. $45.00.

(Preface) "The overall objective of this book was to consider the basic concepts, definitions and standards necessary in the design, construction, commissioning, maintenance and use of isolators. An isolator is a separate device used for pharmaceutical and related applications. It utilizes constructional and/or aerodynamic means to enclose a controlled workplace."

Dictionary of Pharmacovigilance. Amer Alghabban. Pharmaceutical Press, Grayslake, IL. www.pharmpress.com. 2004. 527 pp. $99.95.

(Foreword) "This dictionary, with its comprehensive list of over 3100 definitions, is the first pharmacovigilance dictionary in the English language. Pharmacovigilance, previously known as 'drug monitoring,' is the science and activities relating to the detection, assessment, understanding and prevention of adverse effects or any other drug-related problems."

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