"discovered" in the West. Centuries before Edward Jenner determined that mild cowpox exposure conferred immunity to smallpox, Asians practiced variolation — the controlled exposure to a carefully selected mild case of smallpox in one person to produce immunity in another. This same practice is followed today by some parents, who bring their unimmunized children to chicken pox or measles parties.

Early remedies paved the way for later advances. Acupuncture was not readily adopted by Western doctors, but Bivins speculates that acupuncture helped to familiarize them with needles, domesticating needles for later use in vaccines, drug delivery, and the drawing of blood. There are important lessons in this book for practicing physicians. For example, techniques such as homeopathy may have become popular not because of consistent efficacy but because the patients appreciated attentive clinicians and were attracted to the treatment's benign nature and affordability.

The Western physician, past and present, is made out to be mostly predatory and misguided. Bivins questions why researchers continue to assess treatments from other cultures in a Western framework. Admittedly, we do not have the technology to measure qi or to visualize prana (which of course does not disprove their existence), but we do have the tools to objectively evaluate clinical interventions. With 60% of U.S. medical schools now offering some instruction in alternative medicine, and the commitment to research being made by the National Institutes of Health's National Center for Complementary and Alternative Medicine, there is an effort under way to evaluate practices that may hold promise and bring them into our evidence-based world.

Bivins's book is a work of scholarship filled with thoughtful discussion, but it is largely devoid of colorful or memorable characters, a clear timeline or plot, or clinical discussions — all of which would have made the book more appealing. Bivins does ask one provocative question, illustrated in part by the use of a question mark in the book's title: Why do we continue to use the word "alternative" when the popularity and complementary integration of some of these therapies, especially for the treatment of chronic conditions, continues to increase? There are now more patient visits to alternative medical practitioners than to primary care physicians in the United States.

In the end, this book is about Western attitudes toward the non-Western world. It is a macroscopic analysis rich with philosophical reflection and historical observation that exposes the difficulty of exporting such therapies outside their original cultures and belief structures.

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## ASBESTOS AND ITS DISEASES

Edited by John E. Craighead and Allen R. Gibbs. 403 pp., illustrated. New York, Oxford University Press, 2008. $79.50. ISBN 978-0-19-517869-2.

Asbestos, a well-known carcinogen, is responsible for the dramatic increase in the incidence of pleural mesothelioma among men in Western countries in the past 40 years. This increase is a result of the substantial occupational exposure to asbestos throughout the workforce from the 1930s to the 1980s. The nature of the effects of asbestos on health is also one of the most controversial issues in occupational health, and in the rich body of scientific literature on the subject, almost any opinion possible has been documented.

In this book, scientists with a long-standing history in asbestos research cover a broad variety of topics. The 16 chapters consider etiology, diagnosis, prognosis, and treatment of asbestosis, asbestos-related lung cancer, and mesothelioma of the pleura and peritoneum. In addition, there are discussions of epidemiology, risk assessment, and legal and litigation issues. As such, this book is a comprehensive source of information. The editors have given the contributors the freedom to express their personal viewpoints, and this approach is the source of the book's primary strengths and weaknesses.

The facts and arguments presented by individual contributors provide interesting insight into the historical development of asbestos research. Most of the contributors have been part of this history, and they describe in detail the background and content of hallmark studies, including the initial observations by physicians, the considerations involved in designing and conducting the studies, and the discussions that arose after the initial publication of these studies. These stories show that scientific progress — especially in the epidemiologic studies showing the profound risks

for workers' health — often depends on the groundbreaking work of a few dedicated people.

The highly personalized approach also has its disadvantages, since most contributors take a narrative approach to presenting their opinions and conclusions. Given the many thousands of articles available on almost any topic in the asbestos debate, key issues must be derived from a systematic review of the available literature, such as the differences in carcinogenicity among fiber types, the derivation of safe occupational exposure levels, and the risk to public health posed by typical levels of environmental exposure. It is sometimes difficult to disentangle the rigid scientific conclusions from the personal viewpoints in discussions of controversial issues. In some chapters, strong convictions are presented as scientific facts, most notably in statements such as this one, from chapter 8, which asserts that mesotheliomas "occur rarely among persons exclusively exposed to 'chrysotile' and it is currently believed that 'pure' chrysotile does not cause the neoplasm," and this one, from chapter 13, which states that malignant mesothelioma "is developing in septuagenarians and octogenarians, whose only recognized consequential documented exposure to amphibole asbestos occurred during or shortly after World War II."

Overall, this book is a rich source of historical facts and studies on asbestos and its diseases, yet highly personalized with strong individual viewpoints. It is less authoritative as a source for risk assessment and litigation issues.

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## ANTIANGIOGENIC CANCER THERAPY

Edited by Darren W. Davis, Roy S. Herbst, and James L. Abbruzzese. 841 pp., illustrated. Boca Raton, FL, CRC Press, 2008. $199.95. ISBN 978-0-8493-2799-5.

This year began with the death of Judah Folkman, an enormous blow to the medical and scientific communities. It was in the *Journal*, in 1971, that Folkman published the seminal framework for his ideas about what is now known as tumor angiogenesis. The importance of angiogenesis in preclinical cancer models was reproduced in hundreds of laboratories worldwide, culminating in 2004 in the first antiangiogenic therapy approved by the Food and Drug Administration (FDA) to treat cancer, bevacizumab (Avastin, Genentech). Although this monoclonal antibody is the first in what we hope will be a useful class of therapeutics, antiangiogenic monotherapy has not produced the dramatic results that were once expected.

With few exceptions, solid tumors are driven by proangiogenic mediators such as vascular endothelial growth factor (VEGF) and basic fibroblast growth factor. Such factors are intricately related to tumor biology in a manner that is still not fully understood. *Antiangiogenic Cancer Therapy* is a timely and worthwhile study of the complexities of the clinical application of angiogenesis inhibitors. This book, probably the most comprehensive of its kind, is nicely tempered in its assessments of both the triumphs of antiangiogenic tumor therapy and the gaps in knowledge that impede further successful treatments. Particularly evident is the need for biomarkers and for a better understanding of the molecular mechanisms at work, as antiangiogenic therapy has its effects on both endothelial and perivascular cell lineages.

The editors and contributors of this book — including Folkman, who discusses tumor dormancy and the angiogenic switch — are leaders in the field. The chapters are divided into four parts, beginning with a comprehensive background section on angiogenic factors and tumor biology that transitions into the second section, which contains discussions of molecular targets suitable for this form of cancer therapy. The descriptions of methods for identifying new molecular targets include a nice discussion of genomic and proteomic-based techniques. Part III, which mostly highlights the drug-approval and regulatory process, includes chapters about ongoing research, including discussions of surrogate biomarkers of antiangiogenic efficacy. The last part of the book is an in-depth analysis of current issues concerning the use of antiangiogenic agents for specific malignancies.

A particular strength of this book is its "bench-to-bedside" treatment of anticancer agents. It guides the reader from each seminal finding to its relevance for the growth factor receptor, cell type, and disease. Excellent chapters deal with techniques for the identification of novel antiangiogenic targets and offer a primer on how new