

will help you understand what to do when facing a new transmissible disease. I recommend this book as a valuable addition to departmental and personal libraries.

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The Microbe-Host Interface in Respiratory Tract Infections. Jan LL Kimpen and Octavio Ramilo, editors. Wymondham, Norfolk, United Kingdom: Horizon Bioscience. 2005. Hard cover, illustrated, 323 pages, \$139.95.

This book addresses the complex and fascinating topic of host-pathogen interactions and their respective roles in the pathogenesis of pulmonary infectious diseases. The book includes 13 chapters, written primarily by Dutch physician-scientists with active research programs in the field of pediatric infectious diseases. Although variable in length, the chapters are generally well-written, up to date, and well-referenced. However, because the book was written primarily from a pediatric perspective, very little information is included regarding adult infectious diseases. Much of the content is pediatric-specific, with marginal relevance to common pulmonary infectious syndromes in adults.

Noteworthy chapters include the first two in the book. Chapter 1, "Relevance of Genetic Background in Respiratory Tract Infections," provides an interesting and relatively comprehensive overview of host immunogenetics in respiratory tract infection. Chapter 2, "The Hygiene Hypothesis: The Role of Microbes in the Prevention of Atopy and Atopic Disease," presents an interesting discussion of the hygiene hypothesis of allergic disease, with implications further explored in Chapter 11, "Viral Infections and Childhood Asthma."

Chapter 9, which addresses the role of vaccines in the prevention of respiratory tract infections, provides an interesting discussion of the pneumococcal vaccine and the potential problems inherent in vaccination strategies for other bacterial and viral respiratory pathogens.

The overall appeal of this book is diminished by a number of curious omissions and deficiencies. Despite the well-recognized

and critical role of dendritic cells in the host response to pulmonary pathogens, the term "dendritic cell" is not in the index, and dendritic cells are not specifically discussed in the text. Influenza, despite its obvious overall importance as a viral respiratory pathogen, receives scant attention. This deficiency is especially puzzling, given the inclusion of specific chapters devoted exclusively to adenovirus and rhinovirus. Likewise, tuberculosis receives relatively minor attention in this book, despite the worldwide importance of *Mycobacterium tuberculosis* as a pulmonary pathogen and the amount of scientific interest in host response to *M. tuberculosis*. The book does not include a chapter on the microbe-host interface in chronic obstructive pulmonary disease, which perhaps reflects the editors' pediatric focus. Similarly, bronchiectasis is not discussed outside of the context of cystic fibrosis.

On the back cover, the book touts itself as "essential reading for all scientists and medical professionals involved in this field." In my opinion, this self-assessment is a bit of an overstatement. The primary audience should be investigators of pediatric infectious diseases who want a contemporary, focused review on one of the topics covered. However, other texts, such as *Immunology, Infection, and Immunity*, edited by Pier et al, may better serve this purpose. Scientific investigators in the field are far more likely to rely on original manuscripts and contemporary reviews published in peer-reviewed journals.

Most of the chapters have insufficient information to guide clinical decision making. For clinical reference, health-care providers would be better served by relying on comprehensive textbooks such as *Principles and Practice of Infectious Diseases*, 6th edition, edited by Mandell et al, or condensed textbooks such as *Infectious Diseases: The Clinician's Guide to Diagnosis, Treatment, and Prevention*, edited by Dale. Comparable textbooks in pediatric infectious diseases are available. Online resources, such as *UpToDate*, also provide more appropriate information for health-care practitioners than is covered in **The Microbe-Host Interface in Respiratory Tract Infections**.

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New Perspectives in Monitoring Lung Inflammation: Analysis of Exhaled Breath Condensate. Paolo Montuschi MD, editor. Boca Raton, Florida: CRC Press. 2005. Hard cover, illustrated, 218 pages, \$119.95.

Exhaled breath condensate (EBC) has been more and more extensively used as a novel and noninvasive method to study airway inflammation. It is simple to perform, is very well tolerated by patients, and no adverse events have been reported so far. Serial measurements can be made with no harmful effects on patients, which is of extreme value in medicine. EBC has been obtained from both adults and children suffering from various pulmonary diseases, such as asthma, cystic fibrosis, chronic obstructive pulmonary disease, and interstitial lung diseases. Several markers and mediators are detectable in EBC: hydrogen peroxide, thiobarbituric acid-reactive substances, isoprostanes, prostaglandins, and leukotrienes. Nitric oxide-related markers have also been studied in EBC. There is increasing evidence that the changes in content of markers found in EBC reflect local abnormalities of airway-lining fluid.

I started reviewing this book with the conviction that the task was going to be "homework" that I did not really feel like doing, but I soon realized it was to be a completely different story, as I found the book interesting and stimulating. It is very well written and easy to read. It covers almost all the current knowledge on what EBC is, where it comes from, the technical aspects of EBC collection, the clinical aspects of EBC, et cetera.

The book is intended to provide a comprehensive view of EBC for all interested in pulmonary medicine: physicians and researchers in the field.

The table of contents provides a detailed guide to the structure of the book. The arrangement of headings is carried into the text chapters, and each chapter begins with an exceptionally precise list of subheadings that emphasize each aspect of the described topics.

The book starts with an excellent chapter on a new EBC approach to monitoring lung inflammation. It describes the general idea of how EBC has broadened the spectrum of available tools to study lung diseases in vivo. Until EBC, in vivo studies were limited by the invasive nature of obtaining samples from within the lung (eg, bronchoalveolar lavage, biopsy, sputum collection). The chapter also predicts future EBC develop-

ments and indicates how EBC might have great potential, though it is also admitted that far more information is needed to make reliable and reproducible EBC measurements.

Chapter 2 addresses methodological issues, and all the issues are presented concisely and with great clarity. Chapter 3 discusses the formation and physicochemical properties of EBC. The chapter emphasizes that clarification of the methodological issues is the main priority of the current research. It also discusses future research needs, such as the identification of reference values and studies on formation of EBC, its origin in the respiratory tract, and its relationship with airway-lining fluid.

Chapters 4 through 10 cover inflammation markers in respiratory-tract diseases. This is a particularly important and interesting topic, and the markers are carefully and completely analyzed and discussed. Chapter 4 has an excellent section on eico-

sanoids in EBC in various inflammatory lung diseases. Each chapter ends with a clear and informative summary, which I think will be extremely helpful for readers.

One of the strongest parts of the book is the chapter on the analyses of EBC from children. This topic is presented with its full complexity, but with great clarity. Because of its noninvasive character and the general lack of other appropriate techniques to characterize airway inflammation in children, EBC is particularly interesting for pediatric respiratory medicine. EBC is a simple, safe, and feasible method for sampling inflammatory mediators from the respiratory tract in children ≥ 4 years old.

In Chapter 11 the future of EBC is discussed as unclear, yet promising. This chapter, its author states, is meant to provide some background to stimulate the reader to investigate EBC further.

Chapters 12 through 14 seem to me a bit artificially added to the book. The presence

of Chapter 12, on leukotrienes and prostanooids, and Chapter 14, on cytokines and chemokines, can be justified, because these mediators are detectable and assessed in EBC, but I do not understand why the editor included Chapter 13, on neurogenic airway inflammation and tachykinins, as these topics are not really part of the field of exhaled markers of respiratory disease, and the book should be solely dedicated to noninvasive monitoring of airway inflammation, not just inflammation per se.

In summary, this book provides a comprehensive and profound overview of EBC and its use in clinical medicine. I commend the editor for a worthy addition to the respiratory research literature.

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