

## Lung and Heart-Lung Transplantation.

Joseph P Lynch III and David J Ross, editors. *Lung Biology in Health and Disease*, volume 217, Claude Lenfant, executive editor. Boca Raton: Informa/Taylor & Francis. 2006. Hard cover, illustrated, 947 pages, \$199.95.

Twenty-six and twenty-four years have passed since the first successful human heart-lung transplantation and the first successful human lung transplantation. Since then over 2,500 heart-lung transplant and 22,000 lung transplant procedures have been performed worldwide. Lung and heart-lung transplantation have become established therapies for patients with advanced lung disease. The annual volume of lung transplant procedures has continued to increase, with a total of 1,406 lung transplant procedures and 35 heart-lung transplant procedures performed in the United States in 2005, reported by the United Network for Organ Sharing. The expanding population of post-transplant patients and the increasing national and international availability of lung and heart-lung transplantation for patients with advanced disease support the need for education about these procedures. Volume 217 of the *Lung Biology in Health and Disease* series, **Lung and Heart-Lung Transplantation**, is a comprehensive text that covers virtually all aspects of lung and heart-lung transplantation. The broad spectrum of topics covered, and the juxtaposition of historic and current clinical management review with discussion of basic science and immunology support this text's relevance and value as resource for all individuals involved in lung or heart-lung transplantation. Transplant physicians, nurses, medical personnel, and basic scientists will find this text informative.

This book has 37 chapters, by an international panel of 75 contributing authors. Individual chapters include an overview introduction and are organized into subsections that facilitate easy access to specific information. The chapters are grouped into 10 parts, which focus on specific clinical aspects of lung and heart-lung transplantation. Part I provides an overview of lung

and heart-lung transplantation, and focuses on the history and current outcomes.

Part II details transplant immunology. These essential basic-science-oriented chapters provide an understanding of the mechanisms and problems underlying allograft rejection and tolerance.

Part III consists of 8 chapters on disease-specific aspects of transplantation, including disease management, referral criteria, and post-transplant management concerns and complications. There are chapters on chronic obstructive pulmonary disease, cystic fibrosis, pulmonary arterial hypertension, interstitial lung disease, Langerhans cell histiocytosis, lymphangioleiomyomatosis, pediatric transplantation, living lobar transplantation, and heart-lung transplantation. There is substantial variation in the depth of material covered in this section. The chapters on chronic obstructive pulmonary disease, interstitial lung disorders, Langerhans cell histiocytosis, and lymphangioleiomyomatosis provide in-depth reviews of pre-transplant disease management and prognosis, as well as disease-specific post-transplant concerns. The other chapters in this section are less detailed.

Part IV addresses organ allocation in the United States, Europe, and Australia. The lung allocation scoring system recently adopted by the United Network for Organ Sharing is discussed, as are approaches to organ preservation and expansion of the pool of utilizable donor organs.

Part V provides an excellent overview of agents used for immunosuppression after transplantation, and discusses potential future approaches. The 3 chapters in this section review the mechanisms and toxicities of these agents and summarize the limited clinical data on the use of various agents in lung transplantation.

Part VI covers allograft complications, including primary graft dysfunction and airway complications.

Part VII consists of 7 chapters that focus on infectious complications. Viral, fungal, bacterial, and mycobacterial infections are thoroughly covered, and the discussions include relevant references to experience in nonpulmonary solid-organ transplant settings.

Parts VIII and IX address acute and chronic rejection and include discussions of pathogenesis, histology, and clinical manifestations. Clinical manifestations and management of acute rejection and obliterative bronchiolitis are discussed in close proximity to histologic and pathophysiologic correlations. The depth and completeness of discussion in these sections are noteworthy.

Part X covers long-term complications of lung transplantation and immunosuppression. The content and detail are quite variable in this section, which covers a limited spectrum of disorders. Cardiac, lipid, and atherosclerotic disorders are discussed in detail, as are lymphoproliferative disorders. Metabolic bone disease is discussed briefly. There is no discussion of renal complications, neurologic complications, gastrointestinal complications, or nonlymphoproliferative malignancy.

Tabular and graphical data summaries are clearly presented. However, the quality of the photographs is limited. Bronchoscopy, radiology, and histology are essential tools for the care of lung and heart-lung transplant patients, and the value of this book would have been enhanced by better photographs. The radiographs are compromised by poor resolution and diminutive image size throughout the text. The histologic and bronchoscopic photographs, reproduced in a similar manner, would have been of much greater value if printed in color with greater resolution. Whenever possible, the authors referenced and summarized pertinent available clinical outcomes studies. However, the paucity of randomized controlled studies in the field of lung transplantation must be noted. The text would have been improved by discussion of current limitations and future directions in outcomes research.

In summary, Lynch and Ross have done an excellent job in assembling and organizing a single text that covers the major areas of lung and heart-lung transplantation. Though some of the topics included could have been covered in greater depth, and a few other topics could have been included, the comprehensive breadth and content of this text are commendable. The material covered in **Lung and Heart-Lung Transplantation** is detailed and up to date. It provides both essential background and in-depth dis-

discussion in a clear and organized manner. This would be an excellent resource for any individual who cares for lung or heart-lung transplant recipients.

**Jeffrey D Edelman MD**

Pulmonary and Critical Care Division  
Department of Medicine  
University of Washington  
Seattle, Washington

The author of this review reports no conflict of interest.

**My Office Is Killing Me! The Sick Building Survival Guide.** Jeffrey C May. Baltimore: Johns Hopkins University Press. 2006. Soft cover, illustrated, 317 pages, \$18.95.

Air quality in the workplace has bedeviled workers and managers for decades and has cost millions of dollars in lost work time, illness, and building renovations. Building occupants have searched for information to understand the nature and source of the air quality problems, possible adverse health outcomes, and effective solutions. Jeffrey May, a master's-prepared organic chemist, adds to the current popular literature with his third book, **My Office Is Killing Me! The Sick Building Survival Guide**. This very readable, 317-page book targets the general public and office occupants, rather than an academic or health-and-safety practitioner audience.

The book has 3 parts: The Basics; Daily Life; and The Final Test: Grading the Air. A brief resource guide, chapter-specific bibliography, and useful index complete the text. Each chapter includes a highlighted section of "Practical Steps," which summarizes the chapter and emphasizes specific activities the building occupant can do today to reduce or eliminate potential exposures. Scattered throughout the text are black-and-white pictures of mold and problem buildings, presumably investigated by May. Also included are 14 color plates of problematic ventilation systems and moldy buildings.

The 7 chapters in Part I give an overview of adverse health outcomes that could be related to building contaminants. This section outlines potential exposure sources, identifies projected costs of poor indoor air quality, discusses building-related construction and interior elements that could be sources of contaminants, and describes air performance and gas and particulate classes

of contaminants. May provides very accessible explanations of the fundamental gas and particulate principles and their performance in air streams, which is among the book's high points. Missing from this section is discussion of persistent bio-accumulative toxins, such as flame-retardants, which are of particular concern to women of child-bearing age.

The 5 chapters in Part II are devoted to venue-specific case studies. Though the book's title implies that the emphasis is on the traditional office environment, Section 2 has case studies of indoor air quality challenges in schools, public places, retail establishments, health care institutions, recreational facilities, and hotels. The case studies are from problems that May has problem-solved, some of which are dramatic examples of construction or building management problems. No information is provided about the total number of buildings evaluated (with and without reported air quality problems), so the reader is left to wonder if there is any venue that isn't subject to faulty construction or neglectful management. This section would have benefited from some reflection on the contribution of occupant outrage, labor/management problems, or underlying personal health problems as contributors to symptom reporting.

The final section discusses, in 3 chapters, strategies for testing air quality, including when to hire and what to expect from a professional. Though most building occupants are unlikely to ever use some of the sampling equipment described, they may be in a position to interpret the findings reported by consultants. To that end, May provides information on typical measurement results, though the range of exposures and the clinically relevant health effects related to documented exposures are not presented. There is considerable emphasis here and elsewhere in the book on mold, and May rightfully notes that there are no regulatory requirements for evaluating, measuring, or controlling mold in indoor environments. The reader would have benefited from a more in-depth discussion of the limitations of mold sampling and why regulating the office environment has eluded us.

**My Office Is Killing Me!** appears to be a modest rehash of elements of May's earlier books, with few references to recent research and other publications. His selection of chapter titles and case studies reflect his apparent bias toward problem environments—understandably, since his business

as a consulting Certified Indoor Air Quality Professional probably takes him to worst-case, rather than typical, buildings. However, less inflammatory word choices and examples would help the reader put office indoor air problems into more realistic perspective.

**Janice Camp MSPH CIH COHN-S**

Field Research and Consultation Group  
Department of Environmental and  
Occupational Health Sciences  
University of Washington  
Seattle, Washington

The author of this review reports no conflict of interest.

**Bronchial Vascular Remodeling in Asthma and COPD.** Aili Lazaar, editor. *Lung Biology in Health and Disease*, volume 216, Claude Lenfant, executive editor. Boca Raton: Informa/Taylor & Francis. 2006. Hard cover, illustrated, 233 pages, \$199.95.

**Bronchial Vascular Remodeling in Asthma and COPD**, edited by Aili Lazaar, is volume 216 of the highly successful and authoritative *Lung Biology in Health and Disease* series (executive editor Claude Lenfant). Ten chapters, comprising 226 pages, form the contributions of 20 internationally renowned and highly respected authors from the Netherlands (3 authors), Belgium (4 authors), Australia (2 authors), Italy (2 authors), the United States (6 authors), Thailand (1 author), and the United Kingdom (2 authors). The aim of the book is to review and update the specialist pulmonary physician, pathologist, and scientist on bronchial circulation, rather than the better known pulmonary circulation. The chapters deal specifically with its intrauterine development, factors that regulate angiogenesis and vasculogenesis, its involvement in pathogenesis, especially that of asthma or chronic obstructive pulmonary disease (COPD) and, to a much lesser extent, pulmonary hypertension. These chapters lead naturally to speculation as to how such new information may impact the development of novel therapies or enhance current treatments.

The introduction by Lenfant provides one of several definitions for the widely used term "remodeling" to describe structural change.

Chapter 1 (23 pages and 131 references) focuses on developmental origins and ex-