

quality. The authors present compelling data that improving air quality has a very favorable cost/benefit ratio for society, because it will significantly reduce air-pollution-induced health problems.

In conclusion, **Air Pollutants and the Respiratory Tract** is an extremely useful reference for anyone interested in the sources and health effects of air pollution. The editors and their extremely creditable group of air-pollution experts succeed in conveying the important knowledge that has been compiled over the past several decades, which supports the relationship between air pollution and adverse health effects. I hope that texts of this type will increase public awareness about the ill effects of air pollution and help legislators and political action groups in their quest to improve the air we are all breathing.

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Chronic Obstructive Pulmonary Disease: Cellular and Molecular Mechanisms.

Peter J Barnes, editor. *Lung Biology in Health and Disease*, volume 198, Claude Lenfant, executive editor. Boca Raton, Florida: Informa/Taylor and Francis. 2005. Hard cover, illustrated, 521 pages, \$199.95.

Several new books have recently been published about chronic obstructive pulmonary disease (COPD). This is part of a gen-

eral upsurge in clinical and research interest in this disease. This book is part of the long-running and extensive *Lung Biology in Health and Disease* series. Does this book add to the available literature on COPD? It is indeed the first book with a focus on the molecular and cellular mechanisms of COPD. This is timely because, as we learn more about the role of inflammation in the development and progression of COPD, there is increasing awareness of the need to understand the mechanisms, cells, and molecules involved in this process.

The book is 521 pages long, with 19 chapters, and 33 contributors. The contributors are international experts in COPD research, with European and North American representatives. After an initial introduction by Barnes, the structural and pathologic aspects of COPD are presented and contrasted with asthma in the subsequent 3 chapters. Following these are several chapters devoted to mucus, cells, and mediators involved in COPD. Specific aspects of COPD, such as corticosteroid resistance, genetics, exacerbations, systemic effects, and vascular changes are discussed in subsequent chapters. The final chapter is a look by the editor into the future.

The book's organization provides a fairly comprehensive coverage of the cellular and molecular mechanisms of COPD. A paper specifically discussing how smoking interacts with these various cellular and molecular mechanisms would have added to the book. Cellular aspects of the inflammatory process of COPD are discussed at great length, but the amount and depth of discus-

sion of the mediators involved is relatively limited and could have been more extensive.

The quality of the information provided in the individual chapters is very good, which is not surprising, as most of them are written by leaders in the field. Though in general the diagrams and illustrations are excellent, the pathology chapters could have had more photomicrographs, preferably in color. All the chapters are extensively referenced, providing an excellent resource for further in-depth study.

This book is aimed mostly toward researchers and academicians interested in COPD, but clinicians are not completely ignored; translational aspects of the basic information are discussed in several chapters, such as those on mucin, oxidative stress, and antiproteases. Unfortunately, most of these therapies remain investigational, so clinicians who care for patients with COPD may not find this book useful in their day-to-day practice. Researchers and academicians involved with COPD would find that this book provides an excellent basic framework to understand the cellular and mechanistic aspects of COPD.

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