# BOOK REVIEW

## Oxygen/nitrogen radicals. Lung injury and disease

Lung Biology in Health and Disease, Volume 187
Edited by V. Vallyathan, V. Castranova and X. Shi
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This 187th volume in Marcel Dekker's impressive series "Lung Biology in Health and Disease" covers the role of oxygen and nitrogen radicals in cell signalling, pathogenesis of lung disease and discusses treatment options based on increased knowledge within the field. The editors have a good track record in the research field, and have managed to collect an impressive group of authors to contribute to this book. The book consists of a total of 20 chapters written by 40 authors who are specialists in various areas, such as cell biology, pharmacology, pulmonary and environmental medicine. As a result, the book covers both basic science and clinical medicine.

The book starts with a solid basic introduction into the chemistry of reactive oxygen and nitrogen species, which forms an essential introduction to the field. Several chapters deal with intracellular signalling cascades initiated by exposure to oxidative stress, and discuss the role of reactive oxygen species that are generated intracellularly in signal transduction. Oxidative stress is also a subject of intensive research in environmental and occupational medicine. Several chapters discuss this topic, with chapters focussing on mineral fibres, silica and particulate air pollution. The role of cigarette smoke in inducing airway inflammation and the underlying mechanisms receives appropriate attention. In addition, the role of oxidants in a variety of pulmonary disorders and the role of oxidative stress in carcinogenesis are discussed in detail. This is important since pulmonary carcinogens have oxidative properties.

Although the book covers a multitude of topics, the organisation of the chapters in logical coherent groups could have been better. Nevertheless, the content and index sections of the book are a good starting point for the reader looking for specific information. A general chapter, comparing different strategies for anti-oxidant therapy and the pros and cons of the different approaches would also have been helpful. Information on therapeutic strategies targeting oxidative stress is presented as a section in chapters relating to a selected disease state.

In summary, this book provides a good overview of the rapidly evolving research area on oxidative stress. Since much of this work is usually published in expert journals, which are not widely read in the pulmonary field, it provides a comprehensive overview. Therefore, both basic and clinical researchers, and novices and experts in the research area, will find relevant information discussed by experts in the field in this new volume of the acclaimed Marcel Dekker Series.

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