
Preface

Both the authors have been involved in oxidative stress-related experimental research for the past many years, and therefore, an idea was generated to compile the molecular mechanisms involved in oxidative stress influencing the cell functions and further developing various pathologies.

In this collection, while drafting the contents of the book, two chapters including the basics of oxidative stress-generating systems and the regulation of cell signaling by oxidative stress have been included. In the rest of the chapters, molecular mechanism(s) linking oxidative stress to various pathologies has been taken up. In the end, future perspectives are highlighted on the subject. Limited figures have been included to highlight the important aspects of the text. At the end of each chapter, references including some reviews have also been placed for the reader's convenience for detailed reading on a particular subject matter.

Since oxidative stress continues to be a very large field of study with a great deal of new literature coming up, here the aim was to describe the main fundamental components in each section to have a generic approach. In this approach, some research aspects might be overlooked, and therefore, the authors apologize for that.

The authors feel to convey thanks to all colleagues and associated students for their direct and indirect contribution during this write-up.

This book is addressed to all scientists interested in starting to work in oxidative stress research and graduates and postdocs who want to learn quickly and refer to the molecular mechanisms involved in varying oxidative stress-related pathologies and antioxidant interactions. Also, physicians who want to understand the molecular strategy of the oxidative stress-related diseases and chemists who want to learn about cellular regulation to find agents to treat related diseases might also have interest in this book. Overall, this book is a reference aiming at young researchers and aspiring students to understand the basis and pathophysiological implication of oxidative stress.

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