

Book Review

Resveratrol in Health and Disease
Editors: Bharat B. Aggarwal and Shishir Shishodia
CRC Press, Taylor & Francis Group
ISBN-10 0-8493-3371-7
Pub. date: 2006

The book, "Resveratrol in Health and Disease" edited by B. B. Aggarwal and S. Shishodia is timely since it is ever more evident that oxidative stress plays a major role in a host of important diseases such as cancer, cardiac diseases and in age associated neurodegenerative disorders. A number of epidemiological studies have shown that consumption of fruits and vegetables can delay the occurrence, or reduce the incidence, of these diseases, although the mechanisms involved are not well understood. This book focuses on one particular biologically active plant constituent known as resveratrol, a polyphenol compound and the red wine constituent considered responsible for the French paradox. The text is very readable and overall the quality of the material covered is high. The organization of the book is logical since it begins with an overview of the salient features of resveratrol followed by a chapter on sources and chemistry of the compound. A general chapter on the free radical scavenging properties of resveratrol by Alarcon *de la* Lastra and colleagues describes its key antioxidant properties. This is followed by a major section of the book dedicated to understanding the anticancer properties, molecular targets and actions of resveratrol. The later chapters of the book are somewhat more arcane and deal with the anti-inflammatory, antibacterial and antifungal properties of the compound and its role as a cardioprotective and neuroprotective

agent. A final chapter discusses the pharmacokinetics and metabolism of resveratrol.

As a mitochondrial biologist, I found the chapter on the antioxidant properties of resveratrol especially interesting, highly informative and pertinent to my own research since we have recently found that resveratrol is a potent inhibitor of glucose-induced mitochondrial reactive oxygen species (ROS) production in vascular endothelial cells, which suggests that resveratrol may also prove to be therapeutically useful in metabolic diseases such as diabetes. Overall, this text is an important and useful work on a dietary component of key pharmacological interest and represents, possibly the most comprehensive source of knowledge of the biological properties, molecular mechanisms and therapeutic aspects of resveratrol.

This book is a welcome addition to my library and I fully recommend the work to scientists who are working in the field cancer, neurobiology, metabolic and oxidative stress-related disease.

Dr. Jeffrey S. Armstrong
Department of Biochemistry
MD7, 03-04, Yong Loo Lin School of Medicine
National University of Singapore
8 Medical Drive, Singapore 117597
Singapore