

Book Reviews

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Atherosclerosis Reviews, volume 14 edited by Antonio M. Gotto, Jr., and Rodolfo Paoletti and volume 15 edited by Scott M. Grundy (Raven).

Volume 14 of *Atherosclerosis Reviews* contains nine chapters written by internationally known authors. The book begins with a summary of some recent epidemiologic studies and treatment trials that have been used to support recent recommendations for a more aggressive approach to the diagnosis and treatment of individuals with hypercholesterolemia. An extensive review of the cellular biology of atherosclerosis in human arteries is provided by investigators from the U.S.S.R. Results of case-control and incidence studies conducted in Gottingen provide interesting insights into the cardiovascular risks associated with various lipids, lipoproteins, and apoproteins. The use of electrophysiology as a guide to treatment of arrhythmias in patients with coronary heart disease is also discussed. The process of low-density lipoprotein (LDL) uptake by lower-affinity mechanisms is reviewed, and genetic variations in apoprotein E are described. Mechanisms of aging and age-related modifications in blood vessel walls are also summarized, and the relationship of the age-related vascular events to the development of the atherosclerotic process is discussed. The influence of collagen structure to its physiologic function is considered, and attempts to correlate concepts and findings pertaining to the aging of collagen as they relate to age-associated malfunction in arterial walls is described in detail. Finally, an in-depth discussion of the sarcomere, the contractile unit of the cardiac cell, is provided in the closing chapter. All sections are adequately referenced.

Volume 15 is subtitled "Bile Acids in Atherosclerosis" and examines the connection between the metabolism of cholesterol and bile acids and the development of atherosclerosis. This linkage is of extraordinary importance to the practice of medicine. A concise overview of the hepatic regulation of plasma lipoproteins is presented. This provides a framework for a discussion of research methods to study LDL turnover in humans. A useful clinical classification of the causes of mild, moderate, and severe hypercholesterolemia is described. The pivotal role of hepatic apoprotein B-LDL (apo B-LDL) receptor regulation, which is modulated by intracellular cholesterol con-

centration, is introduced early in the text. The mode of action of the bile-acids sequestrants, which are currently the mainstays of treatment for patients with hypercholesterolemia, is defined. In addition, the interaction between HMG-CoA reductase activity and synthesis of hepatic apo B-LDL receptors is presented in an easily understandable format. This is extremely timely since the use of pharmacologic agents that inhibit this early rate-limiting step in hepatic cholesterol synthesis is emerging rapidly. Several chapters are devoted to discussion of the relationship between hyperlipoproteinemia, hypolipodemic treatment, obesity, and gallstone disease. In addition, an overview of the effects of nonlipid-lowering drugs on the metabolism of serum lipoproteins and biliary lipids is provided. A single chapter addresses the uncommon but interesting association between sitosterolemia with xanthomatosis and premature coronary heart disease in affected male members of a family with this rare autosomal recessive condition. Like volume 14, each chapter is extensively referenced. The book is an excellent resource for clinicians, as well as individuals involved in clinical or basic research in this rapidly expanding field.

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Biochemistry and Biology of Plasma Lipoproteins,

edited by Angelo M. Scanu and Arthur A. Spector (Dekker).

This text covers selective topics that were initially covered in a series of lectures given to graduate students in biochemistry at the University of Chicago during the spring of 1983. Subsequently, with suitable updating, the authors have managed to provide a proceedings that is current and highlight the most recent developments in the study of lipids, lipoprotein, and apolipoprotein metabolism.

The work begins with a comprehensive overview of plasma lipoproteins. The author elaborates about the physical chemical properties of the major lipoprotein classes and subclasses, which include subfractions such as LDL-1, LDL-2, HDL-2, HDL-3 and VHDL-1 and VHDL-2. The second chapter, entitled "The Biogenesis of Lipoproteins," covers current informa-