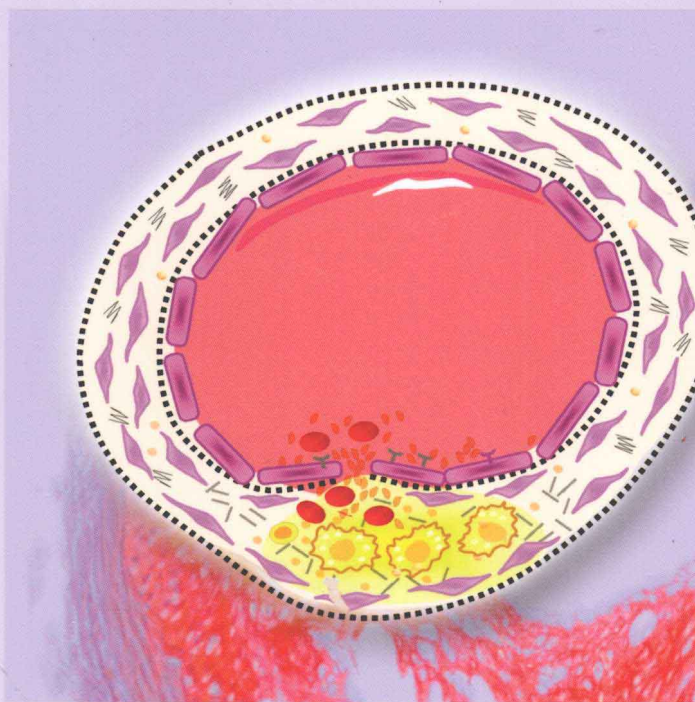


# Atherosclerosis

Molecular and Cellular Mechanisms

Edited by Sarah Jane George  
and Jason Johnson



*Edited by Sarah Jane George and Jason Johnson*

## **Atherosclerosis**

Molecular and Cellular Mechanisms



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#### **Cover**

Cover figure shows Picrosirius red staining of a brachiocephalic artery plaque taken from an Apolipoprotein E deficient mice after eight weeks of high fat feeding. Inset shows a schematic diagram of an unstable atherosclerotic plaque. Pictures provided with kind permission of Sarah J. George.

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## Preface

Cardiovascular disease, which causes coronary artery and peripheral artery disease, is the largest single cause of death and disability in the industrialised world. Atherosclerosis is the pathology which underlies cardiovascular disease. Consequently, a greater understanding of the mechanisms underlying atherosclerosis is essential for the development of new therapeutic approaches for the treatment of cardiovascular disease.

*Atherosclerosis: Molecular and Cellular Mechanisms* is designed to present evidence for the mechanisms underlying atherosclerosis. Atherosclerosis is multifactorial and involves several cell types and therefore this book is aimed to reflect this. This book begins with an introductory chapter, which provides an overview to the pathogenesis of atherosclerosis and sets the scene for the remainder of the volume. The subsequent seventeen chapters are written by world experts and focus on specific cellular and molecular mechanisms to provide detailed up-to-date evidence on one specific area. The book is divided into five sections to reflect key and contemporary areas which modulate atherosclerosis; pro-inflammatory factors, proteases, hyperlipidemia, oxidative stress, and cell growth and phenotype. Although the full picture is not resolved, this book presents our current understanding of some of the key pieces of the jigsaw, which we hope will help to develop better treatments and survival of patients in the future.

We hope that *Atherosclerosis: Molecular and Cellular Mechanisms* will be a key volume which is useful for both basic science and clinical investigators beginning in the field of atherosclerosis such as PhD, MD or undergraduate students or for those with more experience which will benefit from this summary of the latest findings in this field. We are extremely grateful to our authors who have provided excellent authoritative chapters for this book.

Bristol, December 2009

Sarah Jane George and  
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