

New Titles from Portland Press ...

Publisher for the Biochemical Society

Oxidative Stress, Lipoproteins and Cardiovascular Dysfunction

Edited by C A Rice-Evans, *UMDS, University of London, UK* and K R Bruckdorfer, *RFHSM, University of London, UK*

This book brings together some of the foremost researchers in the field of free radical biology as applied to cardiovascular disease, who present up-to-date but concise information concerning new developments in this exciting area of research. The book examines and evaluates our understanding of the role of lipoprotein oxidation in atherosclerosis, mainly from an experimental viewpoint, but referring appropriately to clinical observations. These concepts have given an important stimulus and validity to free radical research and have unleashed much controversy. The book therefore presents different perspectives on the outstanding problems concerning the mechanisms of initiation of atherosclerosis and reperfusion injury and it will also highlight areas for future development. The book will be of value to scientists and clinicians interested and involved in the development of this fertile area of research.

ISBN 1 85578 045 3

Hardback

175 pages

April 1995

£50.00/\$80.00 (provisional)

Pulmonary Vascular Remodelling

J E Bishop and G L Laurent, and J Reeves,

Pulmonary Vascular Remodelling describes the structure of the pulmonary vasculature, giving detailed information on the role of each function of this circulating system. It also provides a detailed description of the molecular and cellular changes and biochemical processes involved in pulmonary vascular remodelling. Topics covered range from the diversity of the pulmonary circulation and its adaption to changes in the environment, to the dynamic nature of extracellular matrix metabolism in the pulmonary vasculature, and the mechanisms that regulate the remodelling processes.

1 85578 041 0 Hard Spring 1995
280 pages £70.00/\$112.00 (provisional)

The Biology of Nitric Oxide

Edited by S Moncada, M Feelisch, R Busse & E A Higgs
Part 3 Physiological and Clinical Aspects

1 85578 063 1 Hard 1995
570 pages £132.00/\$212.00

Part 4 Enzymology, Biochemistry, and Immunology

1 85578 068 2 Hard 1995
450 pages £112.00/\$180.00

Mitochondria: DNA, Proteins and Disease

Edited by V M Darley-Usmar and A H V Schapira

Whilst the function of mitochondria in cell metabolism is well understood, the role which dysfunctional mitochondria play in human disease is just emerging, with many mutations and more diseases associated with mitochondrial abnormalities, eg mitochondrial myopathies, encephalopathies and Leber's hereditary optic neuropathy being described regularly. This book aims to bridge the gap between basic research and clinical practice by bringing together the genetic and bioenergetics aspects of mitochondrial metabolism.

1 85578 042 9 Hard 1994
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Interstitial, Connective Tissue and Lymphatics

Edited by R K Reed, G A Laine, J L Bert, P Winlove and N McHale

Interstitial, Connective Tissue and Lymphatics offers new perspectives on the inter-relationship of the structure and function of the interstitium, and the formation and propulsion of the lymph.

During the last decade, new insights based on work from the field of molecular biology and cellular biology have greatly influenced our understanding of regulatory mechanisms on the genomic and cellular levels, and physiological and biomedical engineering research has continued to supply information and new ideas as to function and mechanisms associated with the interstitium, connective tissues and lymphatics.

This book updates and summarizes our knowledge in these areas of tissue physiology, including presentation and discussion of new experimental approaches, investigations of new systems, and an appreciation of new mechanisms involved with connective tissue physiology.

1 85578 073 9 Hard Spring 1995
300 pages £85.00/\$136.00 (provisional)

New from Portland Press

Neuropeptide Gene Expression

Edited by A J Turner

Neuropeptides are a rapidly growing class of biological signal molecules. Study of their molecular biology is providing insights into important mechanisms of gene expression. In this book, leading scientists survey the recent progress made in the identification of neuropeptides and the factors regulating their expression including transcription factors, enzymes involved in post-translational processing as well as agents modulating peptide hormone release at synaptic terminals. This book will be of interest to both neuroscientists and those studying gene expression in general.

1 85578 044 5 Hardback 1994
300 pages £65.00/US\$105.00

Molecular Botany

Signals and the Environment

Edited by D J Bowles, P M Gilmartin, J P Knox

Molecular Botany presents an overview of the ways in which environmental stimuli lead to developmental and physiological changes within plants. Molecular Botany encompasses wide areas of plant biology including the study of signals, signalling pathways and their end effects. It addresses areas of intense research activity including the role of the cell wall and glycans in signalling through to molecular events regulating gene activation, defence responses and developmental programming. Molecular Botany should appeal to a broad range of students and researchers working in the areas of plant cell and molecular biology and plant biotechnology.

1 85578 050 X Hardback 1994
290 pages £60.00/US\$96.00



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Membrane Titles from Portland Press

Membrane Protein Expression Systems

A User's Guide

Edited by Gwyn Gould

This book is a simple-to-read laboratory manual describing the principles behind the commonly used expression systems, e.g. *Escherichia coli*, *Xenopus* oocytes, baculovirus, vaccinia and yeast. Detailed experimental protocols for each system are provided in an easy-to-use, step-by-step format. The benefits of each system, as well as the likely pitfalls that newcomers might encounter, are discussed in each case. This user-friendly guide is a must for all researchers, from PhD students to senior scientists studying membrane proteins.

1 85578 031 3 Spiral January 1994
310 pages £29.50/US\$45.50

Temperature Adaptation of Biological Membranes

Edited by A R Cossins

This book examines current knowledge of the physical/structural adaptations of membranes to fluctuations in temperature.

New genetic and molecular biology approaches to investigating the underlying machinery are presented in the book. Also included are new perspectives on mechanisms of cold and heat damage, and adaptations which endow enhanced thermoresistance.

Essential reading for anyone studying membrane structure and function: biochemists, biophysicists and physiologists, also all those interested in cold/heat tolerance.

1 85578 062 3 Hardback August 1994
240 pages £65.00/US\$105.00



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Publisher of the Biochemical Society

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April 1995
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Edited by **K F Tipton and D Apps**

Essays in Biochemistry contains ten self contained summaries of rapidly moving areas of biochemistry and molecular biology which are poorly covered in standard student textbooks. Topics covered include

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- The roles of molecular chaperones in vivo *P A Lund*
- Ribozymes *H A James and P C. Turner*
- Opsin genes *B. Edward H. Maden*
- Molecular chaperones: physical and mechanistic properties *Steven G. Burston and Anthony R. Clarke*

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Biochemical Education
Paper 1995
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Fundamentals of Enzyme Kinetics Second Edition

New

A Cornish-Bowden

This book describes the principles of enzyme kinetics, with an emphasis on principles rather than an encyclopaedic accumulation of facts, to allow readers to fill gaps for themselves and proceed in the subject as far as they need to go. In this way it provides the basis for understanding enzyme kinetics, whether at the level of the undergraduate, the research student or the researcher.

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ISBN 1 85578 072 0

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1995

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Cardiovascular Regulation

New

Edited by **D Jordan, and J M Marshall**

Cardiovascular Regulation provides an up-to-date account of our current understanding of the control of the cardiovascular system which is not covered by existing textbooks. Each chapter has numerous summaryboxes and also 'Essential Reading' suggestions for additional reading for undergraduates and 'Further Reading' suggestions for postgraduates.

1 85578 024 0

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A Researcher's Companion

R J Beynon

Thinking of a career in research? About to start or finish - your PhD? About to start post-doctoral research? Then this guide is essential for you. It provides some of the basic advice and information that will be needed during a research training.

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Times Higher Education Supplement

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1993

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