

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-Ussmar 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
230 pages £50.00/\$80.00

Address orders to: Portland Press

Commerce Way, Colchester,

CO2 8HP, UK

Tel: (01206) 796351

Fax: (01206) 799331

Or to: Portland Press Inc.,

(Ashgate Publishing Co.), Old Post Road, Brookfield VT 05036-9704,

Tel: 802-276 3162

Fax: (802) 276 3837

* Postage and handling: please add
£2.00/US\$3.50

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



Portland Press, 100 Brook Hill Drive, West Nyack, New York 10994, USA
Portland Press, 100 Brook Hill Drive, West Nyack, New York 10994, USA
Portland Press, 100 Brook Hill Drive, West Nyack, New York 10994, USA
Portland Press, 100 Brook Hill Drive, West Nyack, New York 10994, USA

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



Portland Press, 100 Brook Hill Drive, West Nyack, New York 10994, USA
Portland Press, 100 Brook Hill Drive, West Nyack, New York 10994, USA
Portland Press, 100 Brook Hill Drive, West Nyack, New York 10994, USA
Portland Press, 100 Brook Hill Drive, West Nyack, New York 10994, USA

New books from Portland Press

Publisher of the Biochemical Society

*The first in a major new series for
young readers*



Making sense of science

by **Fran Balkwill and Mic Rolph** with
Victor Darley-Usmar

The first book in this series, **Microbes Bugs and Wonder Drugs**, will teach you about drugs, their history, use and abuse and their impact on your daily life, particularly focusing on drugs which you and your family may have come across.

It tells compelling science stories, highlights the importance of medical research, and teaches about disease and the body's response to it.

✓ Written by leading scientists and science communicators
✓ Accessible to a wide non-specialist audience
✓ Presents topical subjects in an entertaining and educational way
✓ Highly illustrated

1 85578 065 8
128 pages

Hard

April 1995
£12.99

Essays in Biochemistry Volume 29

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

- Oxygen toxicity, free radicals and antioxidants in human disease *C Rice-Evans and V Gopinathan*
- 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*

From the reviews of *Essays in Biochemistry Vol 28*
"will be of value to undergraduates needing information to write essays and post-graduates and others wanting to get a start in new fields, as well as lecturers wanting to update their knowledge"

1 85578 017 8
240 pages

Biochemical Education
Paper

1995
£15.00/US\$30.00

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.

Contents: Basic principles of chemical kinetics; introductory enzyme kinetics; assays and other practical aspects; derivation of rate equations; inhibition and activation; multi-substrate reactions; isotope exchange and isotope effects; pH and temperature effects; control of enzyme activity; multi-enzyme systems; fast reactions; statistical analysis; references; solutions to problems; index.

ISBN 1 85578 072 0
300 pages

Paper

1995
£18.00/US\$29.00

Cardiovascular Regulation

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

New

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 summary boxes and also 'Essential Reading' suggestions for additional reading for undergraduates and 'Further Reading' suggestions for postgraduates.

1 85578 024 0
150 pages

Paper

1995
£16.95/US\$27.50

Postgraduate Study in the Biological Sciences

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.

"I have encountered no other book quite like this one for brevity, readability and practical down-to earth good sense"

Times Higher Education Supplement

1 85578 009 7

Paper

150 pages

1993
£9.50/US\$17.00

Orders and enquiries to: **Portland Press Ltd**, Commerce Way,
Colchester CO2 8HP, UK

Tel: (01206) 796351 Fax: (01206) 799331

In North America: **Portland Press Inc**, Ashgate
Publishing Co, Old Post Road, Brookfield, VT 05036-
9704 USA Fax (802) 276 3837 Tel (802) 276 3162

