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Publisher of the Biochemical Society

Fundamentals of Enzyme Kinetics

A Cornish-Bowden

Since the first edition was published in 1979, the development of techniques for studying and manipulating genes has transformed biochemistry. Nonetheless, enzymes remain at the heart of all living systems, and an understanding of how they operate is vital for understanding the chemistry of life. This book describes the principles of enzyme kinetics, with an emphasis on fundamentals 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; Introduction to enzyme kinetics; Practical aspects of kinetic studies; How to derive steady-state rate equations; Inhibition and activation of enzymes; Reactions of more than one substrate; Use of isotopes for studying enzyme mechanisms; Environmental effects on enzymes; Control of enzyme activity; Kinetics of multi-enzyme systems; Fast reactions; Estimation of kinetic constants; References; Solutions to problems.

1 85578 072 0

Paper

July 1995

352 pages

£18.00/\$29.00

Pulmonary Vascular Remodelling

Edited by **J E Bishop,**

G L Laurent, and **J Reeves**

Pulmonary Vascular Remodelling

describes the changes that occur in the structure and function of the pulmonary vasculature during the development of pulmonary hypertension. Topics include: • the diversity of the pulmonary circulation and its adaptation to changes in the environment • the dynamic nature of extracellular matrix metabolism • the mechanisms that regulate the remodelling process, including the roles of growth factors, vasoactive substances and mechanical forces. It will be of great value to all researchers and clinicians interested in pulmonary and vascular biology, as well as undergraduates and postgraduates studying cell biology and vascular physiology.

1 85578 041 0 Hard May 1995
280 pages £80.00/\$128.00

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
550 pages £132.00/\$212.00

Part 4 Enzymology, Biochemistry, and Immunology

1 85578 068 2 Hard 1995
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Interstitial, Connective Tissue and Lymphatics

Edited by **R K Reed, N McHale**

J L Bert, P Winlove and

G A Laine

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.

There are twenty-one chapters covered in four sections:

- Structure
- Physical properties
- Lymphatic function
- Integrated function of tissue systems

1 85578 073 9

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Oxidative Stress, Lipoproteins and Cardiovascular Dysfunction

Edited by **C Rice-Evans and**

K R Bruckdorfer

Oxidative Stress, Lipoproteins and Cardiovascular Dysfunction brings

together some of the foremost researchers in the field of free radical biology as applied to cardiovascular disease. It examines our understanding of the role of lipoprotein oxidation in atherosclerosis and presents different perspectives on the problems concerning the mechanisms of initiation of atherosclerosis and reperfusion injury and also highlights areas for future development.

1 85578 045 3 Hard July 1995

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Essays in

Biochemistry Vol 29

Edited by **K F Tipton & D Apps**

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

- Oxygen toxicity, free radicals and antioxidants in human disease
- The roles of molecular chaperones in vivo
- Ribozymes
- Opsin genes.

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Neuropeptide Gene Expression

Frontiers in Neurobiology Vol. 1

Edited by **A J Turner**

Neuropeptide Gene Expression is the first book launched in the new series Frontiers in Neurobiology. 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, and 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

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300 pages

£65.00/US\$105.00

Molecular Botany

Signals and the Environment

Edited by **D J Bowles, P M Gilmartin** and **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

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290 pages

£60.00/US\$96.00

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 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

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230 pages

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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

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Microscopic organisms, including a large multi-segmented worm-like creature, a smaller segmented worm, and a large, multi-legged insect-like organism, are scattered across the top half of the page. On the left, a child in a polka-dot outfit is running and holding a large, dark, worm-like object. The background is filled with small stars and dots.

Fran Balkwill and Mic Rolph
with Victor Darley-Usmar

Microbes
BUGS
and

WONDER
DRUGS



Medical supplies, including a large syringe on the left, several capsules, and a small vial on the right, are scattered around the text. On the right side, there are several flowers, including a large one with five petals and a smaller one with six petals.

Potions to Penicillin, Aspirin to Addiction

ISBN 1 85578 065 8 Hardback 128 pages April 1995 £12.99

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