

New books from Portland Press Ltd

Protein structure, prediction and *design*

edited by John Kay, George Lunt and David Osguthorpe

The 57th annual symposium of the Biochemical Society, held at the University of Bath in April 1990, presented current attempts to determine ways of predicting protein structure and to manipulate protein structure. Some of the world's leading experts in the field presented their view of the current state of the art, and this volume recaptures some of the excitement of the symposium and serves to demonstrate that the prediction and design of protein structure and function is now an attainable goal.

Contents: An assessment of COMPOSER: a rule-based approach to modelling protein structure (*Topham and others*); Secondary structure prediction and protein design (*Garnier and others*); Inverting the protein-folding problem (*Sander*); Structural homology in ligand-specific transport proteins (*North*); Holistic approaches to receptor and channel structure and dynamics (*Kosower*); Modelling of binding sites of the nicotinic acetylcholine receptor and their relation to models of the whole receptor (*Cockcroft and others*); Monoamine neurotransmitter receptors: ligand-receptor models (*Saunders and Findlay*); The expert system approach to predicting protein structure (*Ball and others*); Basic design features of the parallel $\alpha\beta$ barrel, a ubiquitous protein-folding motif (*Wodak and others*); Preparation of artificial bifunctional enzymes by gene fusion (*Bülow*); Restructuring catalysis in the mandelate pathway (*Neidhart and others*); Identification and design of binding determinants in proteins (*Wells and Cunningham*); Antibody-combining sites: prediction and design (*Gregory and others*).

ISBN 1 85578 002 X

Casebound, 158 pages

Price £40/US\$80

Plant lipid biochemistry, structure and utilization

edited by Peter Quinn and John Harwood

The Ninth International Symposium on Plant Lipid Biochemistry was held at Wye College, Kent, in July 1990. Not only has the scale and scope of the topic expanded since the first biannual meeting in 1974, but there have been giant strides, particularly in the last few years, in our knowledge of the detailed structure and function of plant lipids. Industry has never been slow to recognize the commercial importance of plant lipids and has invested heavily in the new technologies described in this book. Virtually all the laboratories that have contributed to these developments were represented at the meeting, and this volume is a compendium of their individual contributions.

Contents: the articles, both plenary lectures and poster contributions, are arranged under the following topics: lipid structure and analysis, physical properties of membrane lipids, role of lipids in membranes, fatty acid synthesis, acylthioesterases and acyltransferases, triacylglycerol formation, polar lipid synthesis and translocation, catabolism of lipids, sterols and terpenoids, modulation of membrane lipid turnover, effect of light and temperature, herbicides and pathological changes in plant lipids, molecular biology and biotechnology.

ISBN 1 85578 003 8

Casebound, 480 pages

Price £47.50 /US\$95



Portland Press Ltd, P.O. Box 32, Commerce Way,
Colchester CO2 8HP, U.K.

Order with credit card by telephone (+0206-46351) or fax (+0206-549331)

Two review compendia from Portland Press

Biochemical Journal Reviews 1990 edited by P.J. England and W.H. Evans

Review articles which were published in **The Biochemical Journal** in 1990 are now available in this invaluable compilation. They provide an important source of teaching material and give research workers an overview of areas outside their own particular speciality. **Biochemical Journal Reviews 1990** gives new insights on the wide range of topics now subject to biochemical investigation.

Topics reviewed include: the glyoxalase system, histone acetylation, DNA methylation, eukaryotic transcription factors, Interleukin-6, transferrin and cellular iron uptake, the prolamin storage proteins of cereal seeds, the molecular design of receptor-selective peptides, protein folding, human IgA, hepatic very-low-density lipoprotein, prion liposomes, transmembrane signalling, nitrogen metabolism in liver, phosphatidylcholine hydrolysis and drug resistance.

Paperback, ISBN 1 8 5578 00 62, 238 pages, price £9.50/US\$20.00

The
BIOCHEMICAL JOURNAL

edited by
P. J. England
and
W. H. Evans

PORTLAND PRESS LIMITED

The Journal of Biological Chemistry

1990 MINIREVIEW COMPENDIUM



Published by the American Society for Biochemistry and Molecular Biology

The Journal of Biological Chemistry 1990 Minireview Compendium

The Journal of Biological Chemistry is one of the world's leading journals of biological chemistry; it publishes over 1000 research articles each year. It also publishes review articles on selected topics of scientific importance. This is the annual compendium of reviews published during 1990. The 36 reviews published in 1990 covered a wide range of topics and will supply invaluable material for lecturers and students.

Topics reviewed include: protein kinase regulation; glycogen phosphorylase; ribonuclease P; islet amyloid polypeptide; ribonucleotide reductases; telomeres; epidermal growth factor; sliding filaments and molecular motile systems; calcium oscillations; the genes of hepatic glucose metabolism; the protonmotive Q cycle; heat shock proteins; molecular-scanning methods of mutation detection; structure of transglutaminases; regulation of cell cycle-dependent gene expression in yeast; protein-protein recognition sites; enzyme-inhibition by fluoro compounds.

Published by the American Society for Biochemistry and Molecular Biology. Paperback, ISBN 0 9621 688 2 3, 144 pages, price £5.00/US\$10.00

Orders to:

Portland Press Ltd, Commerce Way, Whitehall Industrial Estate, Colchester CO2 8HP, UK
Tel: (0206) 46351. Fax: (0206) 549331.



Portland Press

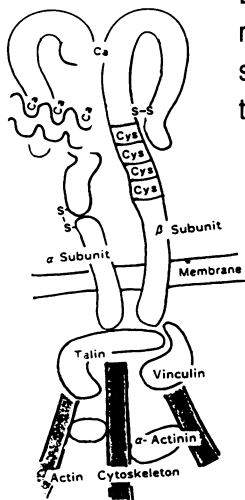
26 Essays in 26 BIOCHEMISTRY 26 Volume 26

Edited by **K. F. Tipton**

ISBN 1 85578 007 0 PRICE : £12.50/US\$25.00

Essays in Biochemistry is one of the most popular series of books created by the Biochemical Society. First started in 1965, and until recently published by Academic Press, the Society has now entrusted its publication to Portland Press. The series has undergone extensive revision to restore its relevance for its primary audience - advanced undergraduates, graduate students and their teachers.

Essays in Biochemistry will be published annually at the start of each academic year. Each volume will cover exciting and rapidly developing areas of biochemistry and molecular and cellular biology of particular interest to students and their teachers. Carefully selected bibliographies provide a lead in to the primary literature, helping readers pursue topics in greater depth.



Contents

- The biochemistry of memory **Steven P. R. Rose**
- Tubulin and microtubules **Edward H. Byard and Bodo M.H. Lange**
- Plant signal perception and transduction: the role of the phosphoinositide system **Bjorn K. Drøbak**
- Artificial cell adhesive proteins **Kiyotoshi Sekiguchi, Toshinaga Maeda and Koiti Titani**
- The urea cycle: a two compartment system **Malcolm Watford**
- Antibody engineering: an overview **Richard O'Kennedy and Paul Roben**
- Ecstasy: towards an understanding of the biochemical basis of the actions of MDMA **Marcus Rattray**
- Structure and function of ribonuclease A binding subsites **Xavier Parés, M. Victòria Nogués, Rafael de Llorens and Claudi M. Cuchillo**
- Metabolic studies using ^{13}C nuclear magnetic resonance spectroscopy
Ronitte Badar-Goffer and Herman Bachelard



Order form

Please send me ___ copies of **Essays in Biochemistry**
(£12.50/US\$25.00)

Name: _____

Address: _____

_____ Postcode _____

Credit card number:

Expiry date: _____ Signature: _____

Payment can be made by cheque or credit card.

Send this order form to: **Portland Press Ltd, Commerce Way,
Colchester CO2 8HP England**

Or order by fax: 0206 549331 (+44 206 549331)

