

# Essays in Biochemistry from Portland Press



## Essays in Biochemistry: Regulation of Gene Expression

Edited by K Chapman, The University of Edinburgh, UK

1 85578 138 7 Paperback April 2001 132 pages £19.00

In all organisms, precise and exquisite control of the expression of the many thousands of genes comprising their genomes is essential for correct development, growth and function. The essays in this volume have been written by international experts working at the forefront of current research. They provide insights into current work and concepts which are elucidating the mechanisms which lead to protein synthesis in the correct cell, at the precise time and in response to appropriate signals.

The Essays contained in this volume are thought provoking, clearly written, well illustrated and accessible and will enable senior undergraduate and junior postgraduate students to appreciate the amazing subtlety and diversity of gene regulatory mechanisms.

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Edited by SJ Higgins, University of Leeds, UK and G Banting, University of Bristol, UK

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Biological systems abound with examples of molecular motors — biological machines for converting the chemical energy of ATP into mechanical movement by cells — they play pivotal roles in diverse cellular function. This volume, covers many of the most exciting developments in the field.

- All of the main motor systems are featured, giving wide coverage.
- Consists of short punchy review articles, making it easy to read.
- The application of gene-cloning methods and the recent advances are described.
- Human disorders involving defects in molecular motor systems such as hearing loss and heart disease are covered.

The Nobel Prize for Chemistry was awarded to John Walker and Paul Boyer in 1997 for their work in elucidating the mechanism of the rotary generator of ATP in the mitochondrion, the  $F_1$ -ATPase. This brought the new developments in the field of molecular motors to the attention of the whole scientific community and, via the media, to a wider world audience. This volume aims to inspire young scientists to want to work in this area.

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The 12 chapters of this volume are written by several of the best-known experts in their specialities.

## Essays in Biochemistry: Molecular Trafficking

Edited by P Bernstein, The Journal of Experimental Medicine, New York, USA

1 85578 131 X Paperback October 2000 200 pages £19.00

This volume of Essays in Biochemistry is a collection of review articles describing how molecules (proteins and nucleic acids) are targeted to, and transported across, various membrane-bound organelles within eukaryotic cells.

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By D Fell, Oxford Brookes University, UK

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*Understanding the Control of Metabolism* is written primarily as a course book for undergraduates who have already taken a basic course in biochemistry and are now studying enzymology and metabolism in more detail.

*"Buy, beg or borrow this excellent book, but READ it if you ever use the words "control" or "regulate" in your thinking, research, or teaching. It may change your whole way of looking at one of the main strands of biochemistry." Protein Science*

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