

catalysts has led to a major resurgence of interest in the ribosome. This book aims to provide an important and timely introduction to many of the tools now required to enable both the newcomer and the established scientist to enter this exciting and challenging field.

The following main topics are covered in this volume:

- Isolation and analysis of ribosomes from prokaryotes, eukaryotes, and organelles.
- Initiation of protein synthesis.
- Purification of elongation factors from *Artemia salina*.
- Peptidyltransferase: the soluble protein EF-P restores the efficiency of 70S ribosome-catalysed peptide-bond synthesis.
- Termination of protein synthesis.
- Design and use of a fast and accurate *in vitro* translation system.
- New techniques for the analysis of intra-RNA and RNA-protein cross-linking data from ribosomes.
- Reconstitution of ribosomes.
- Coupled transcription-translation or ribosomal proteins.
- A hybrid selection technique for analysing *E. coli* mRNA: applications to the study of ribosomal protein operons.
- Analysis of ribosomal RNA structure: experimental and theoretical considerations.
- Site-directed mutagenesis of *E. coli* ribosomal RNA.
- Electron microscopy of ribosomes.

This volume would be very useful for biologists, physiologists, molecular biologists, and advanced students.

**Peptide Hormone Action. A Practical Approach.** Edited by K. SIDDLE and J. C. HUTTON. The Practical Approach Series. Series Editors: D. RICKWOOD and B. D. HAMES. Published February 1991 by Oxford University Press, New York. ISBN: 0-19-963070-4. No. of pages: 256. Price at May 1991. US\$ 78.00.

A full understanding of all the cellular processes involved in the biosynthesis, secretion, and action of peptide hormone requires familiarity with almost every branch of biochemistry. However, it is possible in this volume to cover only a few topics specifically relevant to endocrinology and it is perhaps fortunate that secretion and action are frequently reflections of similar processes. The stimuli for secretion are most often other hormones and neurotransmitters, which may themselves be polypeptides. In one instance diverse stimuli converge on the regulation of one process, exocytosis, whereas in the other a single molecular event, the binding of a hormone to a specific receptor, may result in a cascade of the cellular responses.

The following main topics are covered in this volume:

- Peptide hormone receptors.
- Receptor characterization.
- Cyclic nucleotides.
- Cytoplasmic free calcium: measurement and manipulation in living cells.
- Inositol phosphate second messengers.
- Lipid-related second messengers.
- The insulin receptor tyrosine kinase.

This volume would be very useful for endocrinologists, physiologists, biologists, biophysicists, and advanced students.