

- Transfer of nucleic acids to hybridization membranes
- Preparation of hybridization probes
- Hybridization of immobilized nucleic acid
- Nucleic acid hybridization in solution

and includes a list of manufacturers and suppliers.

PII: S0960-0760(96)00245-2

Transcription Factors. J. Locker. Essential Data Series, edited by D. Rickwood and B. D. Hames. Published 1996 by John Wiley & Sons, Chichester, UK. 150 pages. ISBN: 0-471-95339-3. Price at April 1996: £12.99.

This volume is unique in providing, for the first time, a detailed compendium of information on RNA polymerases I, II and III, and their associated transcription factors, including DNA binding domains. The data are fully up-to-date and have been compiled by exhaustive searches of the primary literature and relevant databases. The book will be invaluable for all molecular biologists involved in studying gene regulation.

There are four main sections as follows:

- RNA polymerase II and associated factors
- RNA polymerase II transcription controls of animals: DNA binding sites and transcription factors
- Eukaryotic RNA polymerase I and III transcription factors
- Transcription factor families and DNA-binding domains

as well as an appendix of DNA and amino acid codes.

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Signal Transduction. Modular Texts in Molecular and Cell Biology—Vol. 1. Carl-Henrick Heldin, Mary Purton. Published 1996 by Chapman & Hall, London, U.K. 365 pages. ISBN: 0-412-70810-8£24.99.

Research on the molecular mechanisms of signal transduction has been very intense during recent years and this book aims to provide an up-to-date summary of the vast amount of information now available on this subject. Several types of receptors described have a common feature in that their activation leads to an increased phosphorylation of cytoplasmic proteins on tyrosine residues. This kinase activity can either reside in the receptor or in an associated protein. Receptors for members of the TGF- β superfamily also signal via stimulation of protein phosphorylation, but in this case with specificity for serine or threonine residues. Written for an audience with a basic understanding of molecular and cell biology, this volume provides an invaluable overview of a rapidly developing field, emphasizing common themes and structures with extensive cross-references.

Part One: 'Cell Surface Receptors' covers the structural and functional properties of the major classes of cell surface receptors in 8 chapters as follows:

- Signaling through receptor tyrosine kinases
- Signal transduction through class I cytokine receptors

- Signaling through cytokine class II receptors
- Signaling through hematopoietic antigen receptors
- Signaling through protein serine/threonine kinase receptors
- Signaling through members of the tumor necrosis factor receptor family
- Signaling through G-protein-coupled receptors
- Receptor-mediated endocytosis of growth factors.

Part Two: 'Cytoplasmic Signal Transduction' focuses on components important for cytoplasmic signal transduction and includes 11 chapters:

- SH2, SH3 and PH domains
- Ras signaling
- MAP kinases in multiple signaling pathways
- Function of phospholipases in signal transduction
- Multiple roles for phosphoinositide 3-kinases in signal transduction
- Calcium signaling
- Cyclic AMP and cyclic GMP in cell signaling
- The protein kinase C gene family
- Protein tyrosine phosphates
- Protein serine-threonine phosphatases
- G proteins in signal transduction

Part Three: 'Nuclear Responses' focuses on the regulation of transcription factors by phosphorylation, the mechanisms for control of the cell cycle and structural and functional properties of the tumor suppressor p53, as well as steroid hormone receptors which interact with their ligand inside the cell and then translocate to the nucleus. It includes the following chapters:

- Steroid hormone and nuclear receptors
- Transcription factors
- The p53 tumor suppressor
- Cell cycle regulation.

This book would be useful for people working in the fields of molecular biology, biochemistry, biology, physiology, and endocrinology, as well as for advanced students.