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BOOK REVIEWS

Hormones and Fetal Pathophysiology. Edited by J. R. PASQUALINI and R. SCHOLLER. Published 1992 by Marcel Dekker Inc., New York. No. of pages: 808. ISBN: 0-8247-8651-3. Price: US$ 185.00.

This book is a timely reference volume offering up-to-date information on the pathological alterations that occur in the biosynthesis of hormones during fetal development. Elucidating the methods of detecting diseases in the embryo using molecular biology techniques, this book provides exhaustive discussions of the following:

—Sex differentiation abnormalities, including genetic control and the role of anti-Mullerian hormone.
—Surfactant-associated proteins during fetal lung development.
—Pathological problems of the placenta.
—α-Fetoprotein and its implications in fetal pathology.
—The effects of prenatally administered sex steroids and anti-steroids on the hormonal responses of offspring.
—Oncogenes and growth factors during pregnancy.

This book constitutes an incomparable resource with around 3000 literature citations and is indispensable to endocrinologists, gynecologists and obstetricians, pediatricians, pathologists, molecular and cellular biologists and biochemists, physiologists, oncologists, histologists, as well as upper-level undergraduates, graduates, and medical school students in these disciplines.

Gene Rearrangement. Edited by B. D. HAMES and D. M. GLOVER. Published 1990 by Oxford University Press, New York. ISBN: 0-19-963050-X. No. of pages: 154.

This volume is one of a series of books on *Frontiers in Molecular Biology* reporting on rapidly evolving key areas of molecular biology research.

DNA sequence rearrangements are widespread in both prokaryotes and eukaryotes and are the subject of intense current research. The scope of this topic is now so vast that it cannot be contained in a single book. An earlier volume in this series, *Molecular Immunology*, was devoted solely to the reorganization and expression of genes of the immune system, whereas this volume covers the latest developments in several other important and related areas of recent progress, contained in the following chapters:

—Genomic rearrangements in prokaryotes;
  —homologous recombination and genome organization,
  —site-specific recombination,
  —transposition,
  —illegitimate recombination.

— Antigenic variations in African trypanosomes: genetic recombination and transcriptional control of VSG genes;
  —African trypanosomes and immune-evasion,
  —ploidy, life-cycle, and chromosome structure,
  —DNA recombinational mechanisms in differential VSG gene expression,
  —identification of transcriptional initiation sites,
  —trypanosomes in the insect vector and expression site,
  —evolution of the VSG gene repertoire.

—DNA amplication in eukaryotes;
  —developmentally regulated rDNA amplification,
  —gene amplification during the development of Dipteran flies,
  —amplification of genes mediating resistance to toxic agents in whole organisms,
  —amplification in mammalian cells in culture,
  —mammalian gene amplification *in vivo*,
  —stimulation of amplification,
  —forms and structures of amplified DNA,
  —evolution of amplified DNA,
  —mechanisms of amplification in mammalian cells.

This book would be useful for biochemists, biologists, molecular biologists, and advanced students.

Ribosomes and Protein Synthesis. A Practical Approach. Edited by G. SPEDDING. The Practical Approach Series. Series Editors: D. RICKWOOD and B. D. HAMES. Published August 1990 by Oxford University Press, New York. ISBN: 0-19-963104-2. No. of pages: 318. Price at May 1991: US$ 75.00.

This volume has been designed to provide an up-to-date, concise, and self-contained introductory guide to the methodology and many of the techniques currently being used in the analysis of the events of protein biosynthesis and in the elucidation of the structure and function of ribosomes.

Ribosomes and the events of protein synthesis have provided a stimulating challenge to biochemists, geneticists, molecular biologists, and biophysical chemists for more than 30 years, and many fundamental questions still remain unanswered. In recent years, an increasing emphasis on the potential capability of RNA molecules to act as molecular