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BOOK REVIEWS

Functional Epithelial Cells in Culture. Edited by KARL S. MATLIN and JOHN D. VALENTICH. Modern Cell Biology, Vol. 8. Series Editor: BIRGIT H. SATIR. Published 1989 by Alan R. Liss, New York. No. of pages: 475. ISBN: 0-8451-3307-1.

Although many studies have covered the physiological and biophysical principles governing epithelial function, little is known about the subcellular and molecular processes associated with the epithelial function or its regulation.

This book contains up-to-date information concerning the mechanisms by which epithelia generate, maintain, or modulate both the plasma membrane and the cytoplasmic polarity responsible for their vectorial function. These fundamental properties permitted the regulation of the composition of the different tissue compartments, principally through vectorial transport of ions, organic solutes, water and macromolecules. In order to investigate the various facets of epithelial biology, cell culture became a model of choice, since it is now recognized that cultured epithelial cells keep and express functions of native epithelia. Also, these *in vitro* techniques allow cellular homogeneity and ease of experimental manipulation.

The following main topics are covered in this volume:

—Aspects of Cell Polarity
  —Development and maintenance of epithelial polarity: a role for the submembranous cytoskeleton
  —Polarity and polarized transport of membrane lipids in a cultured epithelium
  —The sorting of membrane and secretory proteins in polarized epithelial cells
—Growth and Physiology
  —Tight (occluding) junctions in cultured (and native) epithelial cells
  —Regulation of epithelial cell growth *in vitro*
  —Sodium-coupled transport processes in cultured epithelial cells
  —Hormone-regulated ion transort in T_{84} colonic cells
—Methodology
  —Expression vectors for epithelial cells
  —Hormonal and antigenic properties of renal cell populations isolated by immunodissection and grown in cell culture
  —Somatic cell mutants
  —Differential *In Vitro*
  —Differentiation of intestinal cells *in vitro*
  —Mammary epithelial cells as a model for studies of the regulation of gene expression.

This volume would be useful to biologists, physiologists, biochemists, and research workers in a field of molecular biology, as well as for advanced students.

Monoclonal Antibodies in Tumor Therapy: Present Stage, Chances and Limitations. Edited by H. H. SEDLACEK, G. SCHULZ, A. STEINSTRAESSER, L. KUHIMANN, A. SCHWARZ, L. SEIDEL, G. SEEMANN, H.-P. KRAEMER and K. BOSSLET. Contributions to Oncology, Vol. 32. Series Editors: S. ECKHARDT, J. H. HOLZNER and G. A. NAGEL. Published 1988 by Karger, Munich. No. of pages: 178. ISBN: 3-8055-4763-3. Price: US$39.50, £26.90, SFr. 59.00, DM 70.

In this volume the state of the art of tumor therapy with monoclonal antibodies is reviewed. The development and use of various monoclonal antibodies directed against epitopes on tumor-associated antigens is discussed. The localization of tumors in patients with the use of radiolabelled monoclonal antibodies is already possible; this may provide hope in tumor therapy. However, the dosimetric studies clearly revealed that the amount of antibody localizing at the tumor site compared to normal tissue is too low to reach tumor-specific cytotoxicity without intolerable side effects by radionuclides, toxins or cytotostatics linked to the antibody.

The following main topics are covered in this volume:

—Tumor antigens
—Genertion, selection, properties and quality control of murine monoclonal antibodies
—Radioimmunolocalization
—Specific radioimmunotherapy
—Specific chemoimmunotherapy
—Specific immunotherapy
—Bone marrow purging of neoplastic cells
—Human or humanized monoclonal antibodies.

This book contains an up-to-date bibliography and would be useful for pathologists, immunologists, microbiologists, oncologists, biochemists, therapeutic radiologists and cell biologists.

Controversies in Breast Disease. Diagnosis and Management. Edited by S. GRUNDFEST-BRONIATOWSKI and C. B. ESSELSTYN, JR. Published 1988 by Marcel Dekker, New York. ISBN: 0-8247-7880-4.

Diseases of the breast constitute one of the most important aspects of female pathology. Concerning breast carcinoma alone there are about 200,000 new cases in the United States, 40,000 in France, and 25,000 in Great Britain each year. Of these, approximately 25–30% end in death, and for this reason it is extremely important to obtain an early diagnosis. With the new techniques developed this disease can now be detected at a very early stage. There has also been great progress in the treatment, particularly using additive therapeutic methods.

The following main topics are covered in this book:

—Benign disease;
—Breast cancer: epidemiology, natural history, and detection;
—The surgical treatment of "curable" breast cancer;
—Adjuvant hormonal therapy, chemotherapy, and radiation therapy: rationale and results;
—Therapy for advanced breast cancer;
—New horizons.

The book would be useful for oncologists, general clinicians, physiologists and advanced students.